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FIGURE 4184C

CCCCGTCACCAAATCGGAATGCTGCTGTGACGGAGGGAGAGGCTGGGGTCCCCACTGTGAGATCTGCCCTTTCCA
GGGGACTGTGGCTTTCAAGAACTCTGTCCCCATGGCCGAGGATTCATGACCAATGGAGCAGATATCGATGAATG
CAAGGTTATTACGATGTTTGCCGAAATGGGGAATGTGTCAATGACAGAGGATCATATCATTGCATTTGTAAAC
TGGGTACACTCCAGATATAACTGGGACTTCCTGTGTAGATCTGAACGAGTGCAACCAGGCTCCCAAACCCTGCAA
TTTTATCTGCAAAAACACAGAAGGGAGTTACCAGTGTTCATGCCCGAAAGGCTACATTCTGCAAGAGGATGGAAG
GAGCTGCAAAAGATCTTGATGAGTGTGCAACCAAGCAACACAACCTGCCAGTTCCTATGTGTTAACACCATTGGCGG
CTTCACATGCAAAATGTCCTCCCGGATTTACCCAACACCATAACGTCCTGCATTGATAACAATGAATGCACCTCTGA
CATCAATCTGTGCGGGTCTAAGGGCATTGTGCCAGAACACTCCTGGAAGCTTCACCTGTGAATGCCAGCGGGGATT
CTCACTTGATCAGACCGGCTCCAGCTGTGAAGACGTGGACGAGTGTGAGGGTAACCACCGCTGCCAGCATGGCTG
CCAGAACATCATTTGGGGGCTACAGGTGCAGCTGCCCCAGGGCTACCTCCAGCACTACCAGTGGAAACAGTGTGT
TGATGAAAACGAATGCCTCAGCGCTCACATCTGCGGAGGAGCCTCCTGTCAACAACCCCTGGGGAGCTACAAGTG
CATGTGTCCCGCCGGCTTCCAGTATGAACAGTTCAGTGGAGGATGCCAAGACATCAATGAATGTGGCTCTGCGCA
GGCCCCCTGCAGCTATGGCTGTTCCAATACCGAGGGCGGTTACCTGTGTGGCTGTCCACCTGGTTACTTCCGCAT
AGGCCAAGGGCACTGTGTTTCTGGAATGGGCATGGGCCGAGGAAACCCAGAGCCACCTGTCACTGGTGAATGGA
TGACAATTCACTCTCCCCAGAGGCTTGTTACGAGTGTAAAGATCAATGGCTACCCCAAACGGGGCAGGAAACGGAG
AAGCACAACGAAACTGATGCCTCCAATATCGAGGATCAGTCTGAGACAGAAGCCAATGTGAGTCTTGCAAGTTG
GGATGTTGAGAAGACAGCCATCTTTGCTTTCAATATTTCCACGTCAGTAACAAGGTTGCAATCCTAGAATCCT
TCCAGCTCTTACAACCTCTGACGAATCACAACAGATACTTGATCGAATCTGGAAATGAAGATGGCTTCTTTAAAT
CAACCAAAAGGAAGGGATCAGCTACCTCCACTTCACAAAGAAGAAGCCAGTGGCTGGAACCTATTCAATACAAAT
CAGTAGTACTCCACTTTATAAAAAGAAAGAACTTAACCAACTAGAAGACAAATATGACAAAGACTACCTCAGTGG
TGAATGGGTGATAATCTGAAGATGAAAATCCAGGTTTTGCTTCATTAATTCACCATCCAGAGACCAATAATTA
AAAGAAAAACAAATATAGATAGGTAGAACTATATTTTCCCCAATCAGAATCATCATATCATAGGTACAATCTTT
CACCAAGTAAATTTGTATAAATAAGCACTATTCTTTGTATTACCAAAGCAAGGTACAGGTGACTACCCTAGTTCA
AAACAACCACTTTCTCAGGCTTCTCATGTGTGTAGCTAAGCTACCTTGTCTATATGTGTTGATTCTTGAAAACCTGG
GACGTGTATTTCCATTGGGGGTTGGCCATTTATGCTGACATGCCATCCTTCCAGCAAACGTACGGGAATGTGCTT
TCAATTGATGGACTACTCTATTTTTTGCAATTTGTAACTTTGCTTCTCCAAATACAAGTACTAGGTTGTCCAT
TTATGGTACCTATTTGGTGCTAGTAAATTTTCAAACTAGATTTATAAATGCACTGTAATATGTACACAACCTAGA
AACCAAATTACAAGTATTCAGTTCCAATACTTCATTAATTTCAATCAACCAAGTTAGTTCACTAGCTTATCTCA
GTTATGAGTATAATACATTACATGTAAATTAAGTGTGTGTATACTGTAATCGTGCTATTTTTTATCATTGAAACA
TTTATAAACTAGAATAATAATGCCCTTAATGTGAGGGTTTGTAATGGTGCTTATTAAGACCAAAGACTTGTTAAA
TGTATACACCAAGTGGTAATGAAATTTGGGTGACTGGCCACACGTGCATAGAGGTCTGGGAGGACCAGGAAACA
GCCTCAGTGGCCAGAGGATCACCAGTGCATCCTTCATCACAGCATGTGCAATATGCCAAGATTACCCTCGGTCAT
TCCTGTCAACAAGGGGTCAATGTCATAATGTCAATAAAACAATCTCTCTTTTTTTTAGTTT

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FIGURE 4185

MRRGRLLLEIALGFTVLLASYTSHGADANLEAGNVKETRASRAKRRGGGGHDALKGPNVCGSRYNAYCCPGWKTLP
GGNQCIVPICRHSCGDGFCSRPNMCTCPSGQIAPSCGSRSIQHNCNIRCMNGGSCSDDHCLCQKGYIGTHCGQPVC
ESGCLNGGRCVAPNRCACTYGTGTPQCERDYRTGPCFTVISNQMCQQLSGIVCTKTLCCATVGRAWHGPCMCP
AQPHPCRRGFIPNIRTGACQDVDECQAIPGLCQGGNCINTVGSFECKCPAGHKLNEVSQKCEDIDECSTIPGICE
GGECTNTVSSYFCKCPPGFYTSPDGTTRCIDVRPGYCYTALTNGRCSNQLPQSITKMQCCCDAGRCWSPGVTVAPE
MCP IRATEDFNKLCSPVMVIPGRPEYPPPLGPIPPVLPVPPGFPQPQIPVPRPPVEYLYPSREPPRVLPVNV
DYCQLVRYLCQNGRCIPTPGSCRCECNKGFLDLRGECIDVDECEKNPCAGGECINNQSITCQCRAGYQSTLTR
TECRDIDECQLNGRICNNGRCINTDGSFHCVCNAGFHVTRDGKNCEDMDECSIRNMCLNGMCINEDGSFKCICKP
GFQLASDGRYCKDINECETPGICMNGRCVNTDGSYRCECFPLAVGLDGRVCVDTHMRSTCYGGYKRGQCIKPLF
GAVTKSECCASTEYAFGEPCQPCPAQNSAEYQALCSSGPGMTSAGSDINECALDPDICPNGICENLRGTQKIC
NSGYEVDSTGKNCVDINECVLNSLLCDNGQCRNTPGSFVCTCPKGFYIKPDLKTCEDIDECSSPCINGVCKNSP
GSFICECSSESTLDPKTIETIKGTWQTVIDGRCEININGATLKSQCCSSLGAAWGSPCTLCQVDPICGKGY
SRIKGTQCEDIDECVFPVGVCKNGLCVNTRGSFKCQCPSGMTLDATGRICLDIRLETCLFLRYEDEECTLP IAGRH
RMDACCCSVGAAWGTEECCECPMRNTPEYEELCPRGPGFATKEITNGKPFKIDINECKMIPSLCTHGKCRNTIGS
FKRCRDSGFALDSEERNCTDIDECRISPDLCGRGQCVNTPGDFECKCDEGYESGFMNMKNMCDIDECQRDPLLCR
GGVCHNTEGSRCECPPGHQLSPNISACIDINECELSAHLCPNGRCVNLIGKYQCACNPGYHSTPDRFLFCVDIDE
CSIMNGGCETFTCTNSEGSYECSCQPGFALMPDQRSCTDIDECEDNPNICDGGQCTNIPGEYRCLCYDGFMASEDM
KTCVDVNECDLNPNICLSGTCENTKGSFICHCDMGYSKKGKTGCTDINECEIGAHNCGKHAVCTNTAGSFKCS
SPGWIGDGIKCTDLDECSNGTHMCSQHADCKNTMGSYRCLCKEGYTGDFGTCTDLDECSENLNLGNGQCLNAPG
GYRCECDMGFVPSADGKACEDIDECSLPNICVFGTCHNLPGLFRCECEIGYELDRSGGNCTDVNECLDPTTCISG
NCVNTPGSYICDPPDFELNPTRVGCVDTTRSGNCYLDIRPRGDNGDTACSNEIGVGVSASCCCSLGKAWGTPCE
MCPAVNTSEYKILCPGGEGFRPNPITVILEDIDECQELPGLCQGGKCINTFGSFQCRCPGTGYLLNEDTRVCDV
ECETPGICGPGTCYNTVGNITCICPPDYMQVNGGNNMCMRRSLCYRNYADNQTCDGELLFNMTKKMCCCSYNI
GRAWNKPCEQCPIPSTDEFATLCGSQRPGFVIDIYTGLPVDIDECREIPGVCENGVCINMVGSRCECPVGFFYN
DKLLVCEDIDECQNGPVCQRNAECINTAGSYRCDCKPGYRFTSTGQCNDRNECQEIIPNICSHGQCIDTVGSFYCL
CHTGFKTNDQTMCLDINECERDACGNGTCRNTIGSFNCRCHGFI LSHNNDCIDVDECASGNLNLGRNGQCINT
VGSFQCCNEGIEVAPDGRTCVDINECLLEPRKCAPGTCQNLDSYRCICPPGYSLQNEKCEDIDECVEEPEICA
LGTCSENTEGSFKCLCPEGFSLSSSGRRQDLRMSYCYAKFEGGKCSSPKSRNHSKQECCKALKGEGWGPCELCP
TEPDEAFRQICPYGSGIIVGPDDSAVDMDECKEPDVCKHGGQCIINTDGSYRCECFPGYILAGNECVDTECSVGNP
CGNGTCKNVIGGFECTCEEGFEPGPMTCEDINECAQNPLLCAFRCVNTYGSYECKCPVGYVLREDRRMCKDEDE
CEEKGHDCTEKQMECKNLIGTYMCICGPGYQRRPDGEGCVDENECQTKPGICENGRCLNTRGSYTCECNDGFTAS
PNQDECLDNREGYCFTEVLQNMCIIGSSNRNPVTKSECCDGGRGWGPHEICPFQGTVAFFKLCPHGRGFMNG
ADIDECKVIHDVCRNGECVNDRGSYHCICKTGYTPDITGTSCVDLNECNQAPKPCNFICKNTEGSYQCSCKGYI
LQEDGRSCKDLDECATKQHNQCFLCVNTIGGFTCKCPPGFTQHTSCIDNNECTSDINLCGSKGICQNTPGSFTC
EQQRGFSLDQTGSSCEDVDECEGNHRCQHGCQNIIGGYRCSCPQGYLQHYQWNQCVDENECLSAHICGGASCHNT
LGSYKCMCPAGFQYEQFSGGCQDINECGSAQAPCSYGCSNTEGGYLCGCPPGYFRIGQGHCVSGMGMGRGNPEPP
VSGEMDDNSLSPEACEYCKINGYPKRGRKRSTNETDASNIEDQSEANVSLASWDVEKTAIFAFNISHVSNKV
RILELLPALTTLTNHNRYLIESGNEDGFFKINQKEGISYLHFTKKKPVAGTYSLQISSSTPLYKKKELNQLEDKYD
KDYLSGELGDNLMKMIQVLLH

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FIGURE 4186

AAGATGCTGAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCCGGCCCCCTGCAGTCGTGAAGAAGCAGGAGGCT
AAGAAAGTGGTGAATCCCGTTTGAGCAAAGGCCTAAGAATTTTGGCATTGGACAGGACATCCAGCCCCAAAAGAGA
CCTCACCCGCTTTGTGAAATGGCCCCACTATATCAGGCTGCTGGCAAAGGGGATGTCCCCACGAAGAGACCACCT
GTCCTTCGAGCAGGAGTTGACACCGTCACCACCTTGGTGGACAATAAGAAAGCTCAGCTGGTGCTGATTGCACAC
GACGTGGATCCCATCGAGCTGGTTGTCTTCTTGCCCTGCCCTGTGTCGTAAAATGGGGGTCCCTTACTGCATTATC
AAGGGGAAGGCAAGACTGGGACGTCTAGTCCACAGGAAGACCTGCACCACTGTGGCCTTCACACAGGTGAACTCG
GAAGACAAAGGCGCTTTGGCTAAGCTGGTGGAAAGCTATCAGGACCAATTACAACGACAGATACGATGAGATCCGC
CGTCACTGGGGCGGCAACGTCCTGGATCCTAAGTCTGTGGCTCGCATCGCCAAGCTCGAAAAGGCAAAGGCTAAA
GAACTTGCCACTAAATTGGGTAAATGTACACTGTTGAGTTTTCTGTACATAAAATAATTAAATAATATAAATT
TTCCTTC

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FIGURE 4187

[illegible]

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FIGURE 4188

MAAAAKPNNLSLVVHGPGDLRLNYP IPEPGPNEVLLRMHSGICGSDVHYWEYGRIGNFIVKKPMVLGHEASGT
VEKVGSSVKHLKPGDRVAIEPGAPRENDEFCKMGRYNLSPSIFFCATPPDDGNLCRFYKHNAAFICYKLPDNTFE
EGALIEPLSVGIHACRRGGVTLGHKVLVCGAGPIGMVTLLVAKAMGAAQVVVTDLSATRLSKAKEIGADLVLQIS
KESPQEIARKVEGQLGCKPEVTIECTGAEASIQAGIYATRSGGTLVLVGLGSEMTTVPLLHAAIREVDIKGVFRY
CNTWPVAISMLASKSVNVKPLVTHRFPLEKALEAFETFKKGLGLKIMLKCDPSDQNP

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FIGURE 4189

GGAGAACTATCCTATCCCTGAACCAGGCCCAAATGAGGTCTTGCTGAGGATGCATTCTGTTGGAATCTGTGGCTC
AGATGTCCACTACTGGGAGTATGGTCGAATTGGGAATTTTATTGTGAAAAAGCCCATGGTGCTGGGACATGAAGC
TTCGGGAACAGTCGAAAAAGTGGGATCATCGGTAAAGCACCTAAAACCAGGTGATCGTGTTGCCATCGAATCTGG
TGCTCCCCGAGAAAAATGATGAATTCTGCAAGATGGGCCGATACAATCTGTACCTTCCATCTTCTTCTGTGCCAC
ACCCCTGATGATGGGAACCTCTGCCAGTTCTATAAGCACAATGCAGCCTTTTGTACAAGCTTCCTGACAATGT
CACCTTTGAGGAAGGCGCCCTGATTGATCCACTTTCTGTGGGGATCCATGCCTGCAGGAGAGGCGGAGTTACCCT
GGGACACAAGGTCCTTGTGTGTGGAGCTGGGGCAATCGGGGTAGTCACTTTGCTCGTGGCCAAGGCAATGGGAGC
AGCTCAAGTAGTGGTGACTGATCTGTCTGCTACCCGATTGTCCAAAGCCAAGGAGATTGGGGCTGATTTAGTCCT
CCAGATCTCCAAGGAGAGCCCTCAGGAAATCGCCAGGAAAGTAGAAGGTCTGCTGGGGTGCAAGCCGGAAGTCAC
CATCGAGTGCACGGGGCAGAGGCCTCCATCCAGGCAGGCATCTACGCCACTCGCTCTGGTGGGACCCTCGTGCTT
GTGGGGCTGGGCTCTGAGATGACCAACCGTACCCCTACTGCATGCAGCCATCCGGGAGGTGGATATCAAGGGCGTG
TTTCGATACTGCAACACGTGGCCAGTGGCGATTTTCGATGCTTGCCTCCAAGTCTGTGAATGTAAAACCCCTCGTC
ACCCATAGGTTTCTCTGGAGAAAAGCTCTGGAGGCCTTTGAAACATTTAAAAGGGATTGGGGTTGAAAATCATG
CTCAAGTGTGACCCAGTGACCAGAATCCCTGATGTTAATGGGCTCTGCCCTCATCCCCAGTCTCGGGATCTCAG
GGCACAATGGCTGGACATGGGTGGGCTCTGATGCAGAATTTCTCTTTTGAATGTTAAGAATAACTAATACAATT
CATTGTGAACAGAAGTCCTTACGCAGAGGAATTGGTGTGCCTTAAAGATAACAATCTGGGATAGTTTGGGGGA
TGTAGCCAGAATGCCCTGTTTCATGCTGAGCAAAGTTCAGCAAGTAGAGCAGAGTTTGGCAGGCAGGTGCCAGGAA
CTCCCCCTTCTTCTGGAGTGCCTTCATTGAGGAAGGAAATCTGGCCCTTGGGTTTCTGTTTCCACTGCTACTGA
CCCAGAGGGGAATGAGGGCTGAGTTATGAAAAGATAACTTCATGAAGACTTAACTGGCCCAGAAGCTGATTTTCA
TGAAAATCTGCCACTCAGGGTCTGGGATGAAGGCTTGTGAGCACTTCCAGTTTGAACGCAATGTTTCTAGAGAC
ATATTGGCTGTTTGTGTTTATGATGATAAAAGGAGAATAAGAAAAGGCATCACTTTCTGGATCCAGGATAATTTT
AACCAATCAAATGAAAAAACAACAAACAAAAAGGAAATGTCATGTGAGGTAAACCAGTTTGATTCCCTA
ATGTGGAAGAAAGTAAGAGGACTACTCAGCACTGTTTGAAGATTGCCTCTTCTACAGCTTCTGAGAATTGTGTTAT
TTCATTGCCAAGTGAAGGACCCCTCCCCAACATGCCCCACCCCAAGTACGGTCCCTTGTACCAGGC
AACCAGGAAACTGCTACTTGTGGACCTCACCAGAGACCAGGAGGTTTGGTTAGCTCACAGGACTTCCCCCACC
CAGAAGATTAGCATGCCATACTAGACTCATACTCAACTCAACTAGGCTCATACTCAATTGATGGTTATTAGACAA
TTCCATTTCTTTCTGGTTATTATAAACAGAAAATCTTTCCTCTTCTCATTACCAGTAAAGGCTCTTGGTATCTT
CTGTTGGAATGATTTCTATGAACCTTGTCTTATTTTAAATGGTGGGTTTTTTTTCTGGTAAGATTGAGCTAAATC
GCATCATGCCAACTTGTGACTTTGAGACTATTCAAGAATGAGGATATAGTAGCCATGACATAGCTTGAGCTA
TAGCCTTTAATTCCTTACTTTGGCTATGGGTGGAGGTGAGTTTGAAGAGGTTCTGATTTTCTGTAACCTGGGA
AAGCCATGACCTTGTGCCCGATTCTTTAGATTGCTTTGGGTAATAAATATTGGTGGTGGTATCTG

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FIGURE 4190

MHSVIGICGSDVHYWEYGRIGNFIVKKPMVLGHEASGTVEKVGSSVKHLKPGDRVAIESGAPRENDEFCKMGRYNL
SPSIFFCATPPDDGNLCQFYKHNA AFCYKLPDNVTFEEGALIDPLSVGIHACRRGGVTLGHKVLVCGAGAIGVVT
LLVAKAMGAAQVVVTDLSATRLSKAKEIGADLV LQISKESPQEIARKVEGLLGCKPEVTIECTGQRPPSRQASTP
LALVGPSC LWG WALR

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FIGURE 4191

ATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACATGGTATCACCATT
CATATCTCCTTGTTGGAAATTTGAGACCAGCAGGTACTATGTGACTATCACTGATGTCCCAGGACACAGAGACTTC
ATCAAAAATATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATAGTTGCTGCTGGTGTGCCCCTGCTT
CTCCAGGATGTCTACAAAATTGATGGTATTGGTACTGTTCTATTGGCCAAGTGGAGACTGGTGTCTCAAACCT
GGTATGGTGGTCATCTTTGCTCCAGTCAACATTACAACCTGAAGTAAATCTGTCAAAGGCACCATGAAGATTTG
AGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATCTTGTGCTGGCAAC
TTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGATGATTATCCTGAACCGT
CCAGGCCTAATCAGCCCTGGCTACGTCCCTGTACTGGATTGCCACATGGCTCACCTTGCATGCAAGTTTGCTGAG
CTGAAGAAAAGATTGATCGCCATTCTGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGTGCTGCCATCGTT
GACATGGTTCCTGTAAAGCCCATGTGTGTTAAGAGCTTCTCAGACTATCCACCTCTGGATCGCTTTGCTGTTTCAI
GATATGAGACAGACAGTTGTCTATGGGTGTCTATCAAGCAGTGGACAAGAAGGCTGCTGGAGCTGGCAAGGCTGTC
CACACCCTCTACACTTTAGAGGCTTCCCTGAATGGGATGCCCGTGATGAAAACATCCACCAGGAAGAAAGTGGCC
TTTGAAAAAGACGTACAATAA

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FIGURE 4192

MGKGSFKYAWVLDKKAEREHGITIHHISLWKFETSRYVVTITDVPGHRDFIKNMITGTSQADCAVLIVAAGVGEF
EAGISRMSTKLMVLVLFLLAKWRLVFSNLVWSSLLQSTLQLK

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FIGURE 4193

CTGGTCTAACAGACCCGCGAGAACGAAGGACGCTTGCCTTTTTCCGGTCGGGGAAGGGGGAAGAAGGTAAC TTCC
GGTGACGGGGTTGCATCACTTCCTCTCAAGCTTGGCGTTTGT TTTGGTGGGGTTACACGCGGGTTCAACATGCGTA
TCGAAAAGTGTTATTTCTGTTTCGGGGCCCATCTATCCTGGACACGGCATGATGTTTCGTCCGCAACGATTGCAAGG
TGTT CAGATTTTGCAAATCTAAATGTCATAAAAACTTTAAAAAGAAGCGCAATCCTCGCAAAGTTAGGTGGACCA
AAGCATTCCGGAAGCAGCTGGTAAAGAGCTTACAGTGGATAATT CATT TGAATTTGAAAAACGTAGAAATGAAC
CTATCAAATACCAGCGAGAGCTATGGAATAAAACTATTGATGCGATGAAGAGAGTTGAAGAAATCAAACAGAAGC
GCCAAGCTAAATTTATAATGAACAGATTGAAGAAAAATAAAGAGCTACAGAAAGTT CAGGATATCAAAGAAGTCA
AGCAAAACATCCATCTTATCCGAGCCCCCTCTTG CAGGCAAAGGGAAACAGTTGGAAGAGAAAATGGTACAGCAGT
TACAAGAGGATGTGGACATGGAAGATGCTCCTTAAAAATCTCTGTAACCATTTCTTTTATGTACATTTGAAAATG
CCCTTTGGATACTTGGAAC TGCTAAATTATTTTATTTT TACATAAGGTCAC TTAAATGAAAAGCGATTAAAAGA
CATCTTTCCCTGCATTGCCATCTACATAATATCAGATATTACGGATGTTAGATTGCATCTCAGTGT TAAATCTTTA
CTGATAGATGTACTTAAGTAAATCATGAAAATTTCTACTTGTA ACTATAGAAGTGAATTGTGGACGTAAAATGGTT
GTGCTATTTGGATAATGGCACTAGGCAGCATTTGTATAGTAACTAATGGCAAAAATTCATGGCTAGTGATGTATA
AAATAAAATATTCTTTGCAGTAAAATATTCCCTTTGTTAATGTTATAGAAGGGGGGATACAAAAGGAACTAACA
ATTTGTATGGCAGTGT CAGATATTTTATTTTAGTATTTCTGT TTTGGTTTATTTGCATCTTAGAAGAGCATAA
TGACATTGTTTGATGAAGCCTAATTATGCTGGACTGTTTTGACCTGGTTTAACCCTTCTGATAGGTAGTTGTGGA
TGCTGGGGATGAGAACTGAATAATCTTTGCCTGGAGTGACACTACACTCTAGAATTTCCACTTTGGAGAATACTC
AGTTCCAAC TTGTGATTCCTGATAGAACAGACTTTACTTTTCTAGCCCAGCATTGATCTAGAAGCAGAGGAATCC
CAGCGCCTTTTAAAAGTTGTTATGTGGTTTTCTTTTAAAAGCTCCTGTTTTTGGAAAGTAGAATTTATGGGTAC
AACGTATGTTT CATTATTTGTACATAAAATAAAACCATT TAAAAAGTAAAAAAAAAAAAAAAAA

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FIGURE 4194

MRIEKCYFCSGPIYPGHGMMFVRNDCKVFRFCKSKCHKNFKKRNPRKVRWTKAFRKAAGKELTVDNSFEFEKRR
NEPIKYQRELWNKTIDAMKRVEEIKQKRQAKFIMNRLKKNKELQKVQDIKEVKQNIHLIRAPLAGKGKQLEEKMV
QQLQEDVDMEDAP

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FIGURE 4195

ACATAACTCCCCATGTCTGTTGATAAAAAAGAGACCCTAAGGAGGATTAAACTGTTCTCATCCTTTTCGTTAGGGA
ACTGGGAATTGAAGCTGGAGTGACTGCAGCTACTTATACACCTGGTGCATTGCATCCTCACTTGGCCCATTATCA
CGCACCTCCTCGACTTCATCACTTACAATTAGGAGCTCTTCTTTAATGGTTCTTGATATGGCAGGCTATCCTCA
CATCCGTTACATTTTCATCAGGATTGGATGGAACATCATTAGAGGTCCTTTTCAGGGGCAATTTTGAGGAACTGAT
TCATTTGGAAGAAAGATTAGGCAATGTCAATCGTGGAGCATCCCAGGGGACAATTGAAAGATGTACATATCCACA
TAAATACAAAAGAGGAACTGCACTGCAAACAAGATGGGGAAGAAGGGACTGAGGAAGACACAGAGGAAAAATG
TACTATCTGTTTGTCTATTTTAGAGGAAGGTGAAGATGTGAGACGCTTCCATGTATGCACCTTTTCCACCAAGT
GTGTGTTGACCAATGGTTGATTACCAATAAGAAGTGCCCCATATGCAGAGTGGACATTGAGGCCAGCTGCCAAG
TGAAAGTTGACACCATGTTTCAGAACTCTTGCCCTCCCTCTCATTCCCATCCTTCCTGGTACTGCAGTCAACCAA
AGATGGCATGACTTACCTGCGCAGATTTGGAAGCATTGAACCTAGAGTGTGGCTCTGCTATATGGTACAACATA
TGCTAGACCTACAGTTTATGTATACAGTTGATTTTGATGTATTTATAAAGCTTTTTTTTCTAGATTTGACATTT
TTCTGTATCATTTTACTGTATTTTGCATGGTTCCCTGTATTGCATTTCTTTCACATATTATGGGCTTGTGACC
CTAAACTTGCAGGCAAGGTTAGCTGCTTTAGTAAGTAGAATTTGTGGTCTTTTGTGTTTTTACATAGTACCAAG
CCTTGATAATTATGAATTTTTTATCCATTACTAACCTTTAATTTAATCAATCATGTACTTTAGTTTAAATGTATAA
AGATCCTCTAGAAAATGATAATATTGTGTATTAAGACATTCCTTAATTAGGACAAAATGGCTGCTGTATATTTAC
TATATGGAGTTCTGAGTTAAATACCATCCTTAATACTGGGAACAGAATACAACCCATATAAATCAGATGCAGGTG
GTAGTCACATCACCAGAGTGATCAGTATAAATTTCTTGGTGTATCCTTTTCTTTCAACACAGTGCAGATAAGA
GTTGAATATTGATATCATACATTTAGACTGCTGTTCTGATTGCATTTATCTTTTCTTACATCATTAGAAATTT
ATTTCCCTGATTTCAGTTTTTGTCTGTGTAACAGCTCTGATGAACACTAAATATTAATTTCAATTAGCTAGATT
GTACATACTTGCAGATTTAACAAAATTTTAGGGAATTTGAAAAGACATGTAGAATTTGTTGTCTTCTGCTAAGC
ACGAAAAGTTAAGATATCTGCTTACATTGATTTTGTAGACACATTAAGTCAAGATTTGGAATTTAAGTCACTGGC
AGGTATCTGTGCATTTCATAGAATTATAAAGGTCCAGGATCACTTTAAGGGATTTTATTAGTTTAAAGGTAA
ATAAAGTCAGCTGAATCTACATGTCTCTTGTGTTTTATTTCTCTCTAAACTTGAAAACAGTAAATCTGCAGATACTG
TGAGGCACAAATTATACTGTCAACCTACTGTTGCTATGGTTATATACTCCCACTTCATACATTACCAAGAGTCGA
TCACTGATTTAAAATTTTTAATTTCTATAGTTAAGATTTACTGCATAATATAGAATATAAAGTTAAGTTAACATA
CTAACATTTCTCCTTTGGAGGAAGTTTTAATCTACTTCAGGATGCATATTATTATCAAGATACTTTTCATATACAG
GATAGCCTAATTTTATTTGTTTAAATATGCTTAATATGCCCCAGATTGCAAATGCATCCAGTCAGTAATATCACT
GTCTGTATGTGGAGGACATGTTCCCATGGATCATATGTGAAGATGTCAATAAGCTTGCAATTAAGCCACCTGCTTT
GTAAGTGGATTGATTAATAAATAACTTATATTTCTAAAAA

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FIGURE 4196

MVPDMAGYPHIRYISSGLDGTSTFRGPFRGNFEELIHLEERLGNVNRGASQGTIERCTYPHKYKKRKLHCKQDGEE
GTEEDTEEKCTICLSILEEGEDVRRRLPCMHLFHQVCVDQWLI TNKKCPICRVDIEAQLPSES

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FIGURE 4197

AATCCTGGAACAAGGCTACAGCGTCGAAGATCCCCAGCGCTGCGGGCTCGGAGAGCAGTCCTAACGGCGCCTCGT
ACGCTAGTGTCCTCCCTTTTCAGTCCGCGTCCCTCCCTGGGCCGGGCTGGCACTCTTGCTTCCCCGTCCCTCAT
GGCGCTGCTCCGACGCCCCGACGGGTGTCCAGTGATTTGGAGAATATTGACACAGGAGTTAATTCTAAAGTTAAGAG
TCATGTGACTATTAGGCGAACTGTTTTAGAAGAAATTGGAAATAGAGTTACAACCAGAGCAGCACAAAGTAGCTAA
GAAAGCTCAGAACACCAAAGTTCCAGTTCAACCCACCAAAAACAACAAATGTCAACAAACAAGTAAACCTACTGC
TTCTGTCAAACCAGTACAGATGAAAAAGTTGGCTCCAAAGGGTCCTTCTCCACACCTGAGGATGTCTCCATGAA
GGAAGAGAATCTCTGCCAAGCTTTTTCTGATGCCTTGCTCTGCAAAATCGAGGACATTGATAACGAAGATTGGGA
GAACCTCAGCTCTGCAGTGACTACGTAAAGGATATCTATCAGTATCTCAGGCAGCTGGAGGTTTTGCAGTCCAT
AAACCCACATTTCTTAGATGGAAGAGATATAAATGGACGCATGCGTGCCATCCTAGTGGATTGGCTGGTACAAGT
CCACTCCAAGTTTAGGCTTCTGCAGGAGACTCTGTACATGTGCGTTGGCATTATGGATCGATTTTTACAGGTTCA
GCCAGTTTCCCGGAAGAAGCTTCAATTAGTTGGGATTACTGCTCTGCTCTTGGCTTCCAAGTATGAGGAGATGTT
TTCTCCAAATATTGAAGACTTTGTTTACATCACAGACAATGCTTATACCAGTTCCCAAATCCGAGAAATGGAAAC
TCTAATTTTGAAAGAATTGAAATTTGAGTTGGGTCGACCCCTGCCACTACACTTCTTAAGGCGAGCATCAAAAGC
CGGGGAGGTTGATGTTGAACAGCACACTTTAGCCAAGTATTTGATGGAGCTGACTCTCATCGACTATGATATGGT
GCATTATCATCCTTCTAAGGTAGCAGCAGCTGCTTCCTGCTTGTCTCAGAAGGTTCTAGGACAAGGAAAATGGAA
CTTAAAGCAGCAGTATTACACAGGATACACAGAGAATGAAGTATTGGAAGTCATGCAGCACATGGCCAAGAATGT
GGTGAAAGTAAATGAAACTTAACTAAATTCATCGCCATCAAGAATAAGTATGCAAGCAGCAAACTCCTGAAGAT
CAGCATGATCCCTCAGCTGAACTCAAAAGCCGTCAAAGACCTGCCTCCCCACTGATAGGAAGGTCTTAGGCTGC
CGTGGGCCCTGGGGATGTGTGCTTCATTGTGCCCTTTTTCTTATTGGTTTAGAACTCTTGATTTGTACATAGTC
CTCTGGTCTATCTCATGAAACCTCTTCTCAGACCAGTTTTCTAAACATATATTGAGGAAAAATAAAGCGATTGGT
TTTTCTTAAGGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4198

MALLRRPTVSSDLENIDTGVNSKVKSHVTIRRTVLEEIGNRVTTTRAAQVAKKAQNTKVPVQPTKTTNVNKQLKPT
ASVKPVQMEKLAPKGPSPTEPDVSMKEENLCQAFSDALLCKIEDIDNEDWENPQLCSDYVKDIYQYLRQLEVLQS
INPHFLDGRDINGRMRAILVDWLQVHSKFRLLQETLYMCVGIMDRFLQVQPVSRKKLQLVGITALLLASKYEEM
FSPNIEDFVYITDNAYTSSQIREMETLILKELKFELGRPLPLHFLRRASKAGEVDVEQHTLAKYLMELTLIDYDM
VHYHPSKVAAAASCLSQKVLGQGKWNLKQQYYTGYTENEVLEVMQHMAKNVVKVNENLTKFIAIKNKYASSKLLK
ISMIPQLNSKAVKDLASPLIGRS

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FIGURE 4199A

CGAGACTCAGCCAGAGGAGTACGGATTAAGTGGCCGAAGAAAGAGGAGTGAGGCAGGGGAGCGAGGCGGACGCTC
CGAGCGCATCGGACTCACCTGGGCGGCGGCGACCGCGAGTACGAGTGGACTCTTGCCCTCCGCAGCATGCGCC
CCGCCTGCTAAGTCGCCGCCGCTCTCGCCCTACCTAGCACCGCCAATCCCGCCTGGATGGAGTCCCCCTCTGGGTT
CCCATTGGCTCCTGTGAGTGCTTGGGTGTCGGGAGCCTGTTTTTGGCGAGGGGAACCAACTTTTGAAGTTCGCC
AGAAGACTGCGTTCCAGCCCCAGTTCCCCGGCAGCGGGACCCGGCGAAGACGCGACCGCGCGAGTCACCATG
GGAAGCAAAGGTGTCTACCAGTACCCTGGCAAAGCCACAATGTCAAGCACAGTGGTGTGGACGACATGGTGCTA
CTGTCCAAAGATCACAGAGAACTCCATCGTGGAGAATCTGAAGAAGAGATACATGGATGACTACATTTTTACATAT
ATAGGATCTGTATTAATCTCAGTCAACCCCTTTCAAGCAGATGCCATATTTTGGGAAAAGGAAATTGAAATGTAC
CAAGGAGCGGCACAGTATGAAAACCCACCACATATCTATGCCCTTGCAGATAATATGTACAGAAACATGATCATT
GACAGAGAGAACCAGTGCCTCATTATCAGTGGTGAAAGTGGTGCTGGAAAAACAGTGGCTGCCAAATATATCATG
AGCTACATCTCCAGAGTGTCTGGAGGAGGGACCAAAGTCCAGCACGTGAAGGACATTATCTGCAGTCCAACCCG
CTGCTGGAGGCCTTCGGGAACGCCAAGACCGTCCGGAACAACAACCTCCAGCCGATTGGAAAATACTTTGAAATC
CAGTTCAGTCCAGGTGGGGAACCAGATGGTGGAAAGATCTCCAACCTTCTTCTGGAAAATCTAGGGTGGTGATG
AGGAACCCAGGAGAGCGGAGTTTTACATATTTTACCAGCTCATCGAGGGCGCCTCTGCAGAGCAGAAACACAGC
CTTGGCATCACAGCATGGACTATTATTACTACCTGAGCCTCTCGGGCTCATACAAGTTGATGACATTGACGAC
AGGCGGGAGTTTCAGGAACTCTGCACGCCATGAATGTGATTGGGATCTTTGCAGAAGAGCAAACGCTGGTGTTG
CAGATAGTGGCGGGTATTCTCCACCTGGGAAACATCAGCTTCAAAGAAGTTGGCAACTACGCGGCTGTGGAGAGT
GAAGAGTTTTTAGCTTTTCTGCATATCTGCTAGGGATAAACAGGACCGGTTGAAAGAAAAGCTAACAAAGCCGG
CAGATGGATAGCAAGTGGGGAGGCAAATCCGAATCCATCCACGTGACCCTCAACGTAGAGCAGGCCTGTTACACC
CGGGATGCGCTCGCCAAGGCCCTGCACGCCCGGGTCTTTGATTTCTTGGTAGATTCCATCAATAAAGCCATGGAG
AAAGACCATGAAGAATACAACATTGGCGTCTTAGACATCTATGGCTTTGAAATATTCCAGAAAAATGGCTTTGAA
CAGTTTTGTATCAATTTTGTTAATGAAAACTGCAGCAGATTTTTATTGAAGTACATTAAAGGCAGAACAGGAA
GAATATGTTCAAGAGGGAATAAGATGGACACCCATTGAGTACTTTAATAATAAAATCGTATGTGACCTCATAGAG
AACAAAGTGAACCCCTCTGGCATCATGAGCATCTGGATGACGTGTGCGCCACGATGCATGCGGTGGGTGAGGGG
GCAGATCAGACGCTGCTCCAGAACTTCAGATGCAGATTGGGAGTCATGAGCACTTCAACAGTTGGAACCAAGGC
TTCATCATTATCATTATGCTGGGAAGGTATCCTATGACATGGATGGCTTTTGTGAAAGGAACCGGGATGTGCTT
TTTATGGATCTCATCGAGCTTATGCAGAGCAGCGAGCTGCCTTTTATAAAGTCTTTATTTCCGGAAAAATCTGCAG
GCTGACAAGAAAGGGCGCCCACTACTGCCGGAAGCAAATAAAGAAACAAGCCAATGACCTTGTGAGCACCCCTG
ATGAAATGTACGCCCCACTACATTGCTGCATCAAGCCAAACGAAACCAAGAAGCCCAGAGACTGGGAGGAAAGC
AGGGTAAAGCATCAAGTCGAATATTTGGGTCTGAAAGAGAACATTCGAGTGAGAAGAGCTGGCTATGCCTATCGG
CGCATCTTCCAAAAATTCCTACAGAGGTATGCCATTCTGACCAAAGCCACCTGGCCTTCTTGGCAGGGAGAGGAG
AAGCAAGGCGTCCGTCACCTGCTGCAGTCCGTCAACATGGACAGCGACCACTCCAGCTGGGGAGGAGTAAAGTG
TTCATCAAAGCCCCGAGTCTCTATTCTTTTAGAAGAGATGAGAGAGAGAAAGTATGATGGGTATGCTCGAGTG
ATACAGAAATCATGGAGGAAATTCGTGGCCCGGAAGAAATACGTTCAAATGAGAGAAGAAGCCTCAGACCTCTTA
TTGAACAAGAAGGAGAGAAGGAGAAACAGTATTAACAGGAACCTTATAGGGGATTATATTGGGATGGAAGAGCAC
CCAGAACTCCAGCAGTTCTGTGGGCAAGAGGGAGAAGATTGATTTTCGACAGACAGTCACCAAGTATGACAGGAGG
TTCAAGGGTGTAAGCGAGACCTGCTCCTTACCCCAAAGTGCTTGTAATTCGACGAGAAAAAGTCAAACAG
GGCCAGACAAGGGCTGGTGAAAGAAGTCTGAAGCGGAAAAATCGAGATAGAACGGATCTTGCTGTGTGCCCTC
AGTACTATGCAGGATGACATTTTTATTCTCCATGAGCAAGAGTATGACAGTTTGCTTGAATCTGTCTTCAAACT
GAATTCCTAAGCCTCTTAGCAAAGCGTTACGAGGAGAAGACCCAGAAGCAACTACCTCTGAAATTGAGCAATACG
CTTGAAGTGAAGTTGAAAAAGGAAAACTGGGGCCCTGGAGTGCAGGGGGCTCCCGGCAAGTGCAGTTCCACCAA
GGGTTTGGGGACCTGGCTGTCTCAAGCCCAGTAACAAAGTGCTGCAGGTGAGCATCGGACCTGGACTGCCCAAG
AACTCCCGTCTTACCAGAAGGAACACTACCCAAAAATACAGGTATTTCAGTGGGACTCAAAATGCCAACTACCCA
GTGAGAGCTGCCCTCCTCCCCAGGATACCATCAGAACGGAGTCATCAGAAACAGTATGTGCCATATCCCCAT
GCTCCTGGAAGCCAGAGGTCCAATCAGAAAAGCCTGTACACCTCCATGGCCCCGCCGCCCTTGCCTCGGCAGCAG
TCTACCAGTTCAGACCGAGTGTACAGACGCCAGAGAGCCTGGATTTCTCAAGGTCCCGGACCAGGGAGCTGCA
GGGGTCAGGAGACAAACAACAGTCCGGCTCCCCAGCAGGGGGCAGACCCAAGCCCCAGCCCAAGCCCAAGCCT
CAGGTGCCACAGTGCAAGGCTTTGTATGCCTATGACGCTCAGGACACAGACGAACCTCAGCTTTAATGCCAATGAC

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FIGURE 4199B

ATTATTGATATTATCAAAGAAGATCCTTCTGGCTGGTGGACGGGTCGACTACGAGGCAAGCAGGGCCTGTTCCCC
AACAACTATGTGACCAAGATCTGAGGTGCCCCGTGACTCTGACACATGGGGCAGAGGAGCTCCAGGCACAGACCAG
GGGAGGGGATATTTAGGGGCTCCCCTTACAATCCACAATGAGCAATTGCTTCTCCAAGGCCTGGAGCTATTCTGG
TACCTTCCCCATGGAGGACACTGAAAAGGCTGGGTGGGGACAGGGAGTATCACTCCATAAGTGATCCTAAAAGG
TAGCCTCTTCATAGGAACCCAGGAGGACAAAACCAACCATGCATTAAGATTTATTTATTGTATTTAAACCTGGTGA
GAGGACAAGTGAGGTCTGCTCAGACCTTGTAGGCTTCTATCAAAACAGCACCCCTGCTTGCTCACCAGGCCTAGAG
AATGGCTGTAGGTGGCCGCTGACAAGTGCCTTTAGTTGAAGAGCACATTTCTTTTCATCTCTCTTGTCCTACCTG
ATAGACACATTCCTCTCTGCCACCTTCCTTCAGGGAGGACCCGCCCTCTGCAGACTGGGCTTAGCGTGAGCAGGC
ACTTCCCATGTACGTGCCAAGGGTAAGCTGGCCTGCTGAGCCCAGGGCGACAGAGGGGCACTGGTTTTACACTTTG
CCGGGACCATCAGGGCCGCCAAGCAGGTGAGGGGCTGGGGGCTGGGGGCTGGGCTGCTGGCTTTGCTTTCTCTGG
GTCTTCAATTAGAAATGTGGCTGGCCCATATTGGTTTGTGTTTAAATGCTGTACTTACTACAAGAAGGATCTTTTT
TCAAGCTGTACATTTATAAAAAACAGATCATATACTGTATATATAAAAAATCTTGAGATGGTAGAAACATGTATGAA
TGTAAGTAGTAGTATTCCACTGTACTCATTTCATAAGGTAGGTTTTCTTACAAAACCTCACACCAGGTACTTAAAGA
TGTCCTCTGCTTTTTTTTCCAACCTACGGAGTGTCACTGCTTTCTAGGTCAGTCCCTGCAGACTCTTCTCAACTCTTT
CCCTATAGGAAACTTACT

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FIGURE 4200

TTTTGGCTCTCTCACCAGCACCATGGCTGTTGGCAAGAACAAGCGCCTTACGAAAGGCGGCACAAAAGGGAGCCAA
GAAGAAAGTGGTTGATCCATTTTCTAAGAAAGATTGGTATGATGTGAAAGCACCTGCTATGTTCAATATAAGAAA
TATTGGAAAGACGCTCGTCACCAGGACCCAAGGAACCAAAATTGCGTCTGATGGTCTCAAGGGTCGTGTGTTTGA
AGTGAGTCTTGCTGATTTGCAGAATGATGAAGTTGCATTTAGAAAATTCAAGCTGATTACTGAAGATGTTTCAGGG
TAAAAACTGCCTGACTAACTTCCATGGCATGGATCTTACCCGTGACAAAATGTGTTCCATGGTCAAAAAATGGCA
GACAATGATTGAAGCTCACGTTGATGTCAAGACTACCGATGGTTACTTGCTTCGTCTGTTCTGTGTTGGTTTTAC
TAAAAACGCAAAAATCAGATACGGAAGACCTCTTATGCTCAGCACCAACAGGTCCGCCAAATCCGGAAGAAGAT
GATGGAAATCATGATCCGAGAGGTGCAGACAAATGACTTGAAAGAAGTGGTCAATAAATTGATTCCAGACAGCAT
TGGAAAAGACATAGAAAAGGCTTGCCAATCTATTTATCCTCTCCATGATGTCTTCGTTAGAAAAGTAAAAATGCT
GAAGAAGCCCAAGTTTGAATTGGGAAAGCTCATGGAGCTTCATGGTGAAGGCAGTAGTTCTGGAAAAGCCACTGG
GGACGAGACAGGTGCTAAAGTTGAACGAGCTGATGGATATGAACCACCAGTCCAAGAATCTGTTTAAAGTTTCAGA
CTTCAAAATAGTGGCAATAAAACGTGCTATTTGT

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FIGURE 4201

MAVGKNKRLTKGGKKGAKKKVVDPFSSKDWYDVKAPAMFNIRNIGKTLVTRTQGTIASDGLKGRVFEVSLADLQ
NDEVAFRKFKLITEDVQGKNCLTNFHGMDLTRDKMCSMVKKWQTMIEAHVDVKTTDGYLLRLFCVGFTKKRKNQI
RKTSYAQQVVRQIRKKMMEIMIREVQTNDLKEVVNKLIPDSIGKDIEKACQSIYPLHDVFVRKVKMLKKPKFEL
GKLMELHGEGSSSGKATGDETGAKVERADGYEPPVQESV

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FIGURE 4202

GTGTGGATGAGGTCACCATTTGTCAACATTTTGAACCAACCGCAGCAATGCACAGAGACAGGATATTGCCTTCGCCT
ACCAGAGAAGGACCAAAAAGGAACCTTGCATCAGCACTGAAGTCAGCCTTATCTGGCCACCTGGAGACGGTGATTT
TGGGCCTATTGAAGACACCTGCTCAGTATGACGCTTCTGAGCTAAAAGCTTCCATGAAGGGGCTGGGAACCGACG
AGGACTCTCTCATTGAGATCATCTGCTCCAGAACCAACCAGGAGCTGCAGGAAATTAACAGAGTCTACAAGGAAA
XX
XXXXXGGTAGAAGAGCAGAGGATGGCTCTGTCAATTGATTATGAACTGATTGACCAAGATGCTCGGGATCTCTATG
ACGCTGGAGTGAAGAGGAAAGGAACCTGATGTTCCCAAGTGGATCAGCATCATGACCGAGCGGAGCGTGCCCCACC
TCCAGAAAGTATTTGATAGGTACAAGAGTTACAGCCCTTATGACATGTTGGAAAGCATCAGGAAAGAGGTTAAAG
GAGACCTGGAAAATGCTTTCTGAACCTGGTTTCAGTGCATTGAGAACAAGCCCCTGTATTTTGCTGATCGGCTGT
ATGACTCCATGAAGGGCAAGGGGACGCGAGATAAGGTCTGATCAGAATCATGGTCTCCCGCAGTGAAGTGGACA
TGTTGAAAATTAGGTCTGAATTCAAGAGAAAAGTACGGCAAGTCCCTGTACTATTATATCCAGCAAGACACTAAGG
GCGACTACCAGAAAGCGCTGCTGTACCTGTGTGGTGGAGATGACTGAAGCCCGACACGGCCTGAGCGTCCAGAAA
TGGTGCTCACCATGCTTCCAGCTAACAGGTCTAGAAAACCAGCTTGCGAATAACAGTCCCCGTGGCCATCCCTGT
GAGGGTGACGTTAGCATTACCCCCAACCTCATTTTAGTTGCCTAAGCATTGCCTGGCCTTCCTGTCTAGTCTCTC
CTGTAAGCCAAAGAAATGAACATTCGAAGGAGTTGGAAGTGAAGTCTATGATGTGAAACACTTTCCTCCTGTGT
ACTGTGTCATAAACAGATGAATAAACTGAATTTGTACTTT

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FIGURE 4203

GTACTCGCCACGGCACCCAGGCTGCGCGCACGCGGTCCCGGTGTGCAGCTGGAGAGCGAGCGGCCACCGGGAGCC
CCCGGCACAGCCCGCGCCCCGCCCGCAGGAGCCCGCGAAGATGCCCCGGCGCAGCCTGCACGCGGCGGCCGTGCT
CCTGCTGGTGATCTTAAAGGAACAGCCTTCCAGCCCGGCCAGTGAACGGTTCCAAGTGGACTTATTTTGGTCC
TGATGGGGAGAATAGCTGGTCCAAGAAGTACCCGTCGTGTGGGGGCTGCTGCAGTCCCCCATAGACCTGCACAG
TGACATCCTCCAGTATGACGCCAGCCTCACGCCCCCTCGAGTTCCAAGGCTACAATCTGTCTGCCAACAAAGCAGTT
TCTCCTGACCAACAATGGCCATTAGTGAAGCTGAACCTGCCCTCGGACATGCACATCCAGGGCCTCCAGTCTCG
CTACAGTGCCACGCAGCTGCACCTGCACCTGGGGGAACCCGAATGACCCGCACGGCTCTGAGCACACCGTCAGCGG
ACAGCACTTCGCCGCCGAGCTGCACATTGTCCATTATAACTCAGACCTTTATCCTGACGCCAGCACTGCCAGCAA
CAAGTCAGAAGGCCTCGCTGTCTGGCTGTTCTCATTGAGATGGGCTCCTTCAATCCGTCCTATGACAAGATCTT
CAGTCACCTTCAACATGTAAAGTACAAAGGCCAGGAAGCATTCTGCCGGGATTCAACATTGAAGAGCTGCTTCC
GGAGAGGACCGCTGAATATTACCGCTACCGGGGGTCCCTGACCACACCCCTTGCAACCCCACTGTGCTCTGGAC
AGTTTTCCGAAACCCCGTGCAATTTCCAGGAGCAGCTGCTGGCTTTGGAGACAGCCCTGTACTGCACACACAT
GGACGACCTTCCCCCAGAGAAATGATCAACAACCTCCGGCAGGTCCAGAAGTTCGATGAGAGGCTGGTATACAC
CTCCTTCTCCCAAGTGCAAGTCTGTACTGCGGCAGGACTGAGTCTGGGCATCATCCTCTCACTGGCCCTGGCTGG
CATTCTTGGCATCTGTATTGTGGTGGTGGTGTCCATTGGCTTTTCAGAAGGAAGAGTATCAAAAAAGGTGATAA
CAAGGGAGTCATTTACAAGCCAGCCACCAAGATGGAGACTGAGGCCCACGCTTGAGGTCCCCGAGCTCCCGGGC
ACA'CCAGGAAGGACCTTGCTTTGGACCCTACACACTTCGGCTCTCTGGACACTTGGGACACCTCAAGGTGTTCT
CTGTAGCTCAATCTGCAACATGCCAGGCCTCAGGGATCCTCTGCTGGGTGCCTCCTTGCCCTGGGACCATGGCC
ACCCAGAGCCATCCGATCGATGGATGGGATGCACTCTCAGACCAAGCAGCAGGAATTCAAAGCTGCTTGCTGTA
ACTGTGTGAGATTGTGAAGTGGTCTGAATTCTGGAATCACAACCAAGCCATGCTGGTGGGCCATTAATGGTTGG
AAAACACTTTTCATCCGGGGCTTTGCCAGAGCGTGCTTTCAAGTGTCTGGAAAGTCTGCTGCTTCTCCAAGCTTT
CAGACAAGAATGTGCACTCTCTGCTTAGGTTTGTCTGGGAAACTCAACTTCTTTCCTCTGGAGACGGGGCATCT
CCCTCTGATTTCTTCTGCTATGACAAAACCTTTAATCTGCACCTTACAACCTCGGGGACAAATGGGGACAGGAAG
GATCAAGTTGTAGAGAGAAAAAGAAAACAAGAGATATACATTGTGATATATTAGGGACACTTTCACAGTCCTGT
CCTCTGGATCACAGACACTGCACAGACCTTAGGGAATGGCAGGTTCAAGTTCACCTTCTTGGTGGGGATGAGAAG
GGAGAGAGAGCTAGAGGGACAAAGAGAATGAGAAGACATGGATGATCTGGGAGAGTCTCACTTTGGAATCAGAAT
TGGAATCACATTCTGTTTATCAAGCCATAATGTAAGGACAGAATAATACAATATTAAGTCCAAATCCAACCTCCT
GTCAGTGGAGCAGTTATGTTTTATACTCTACAGATTTTACAAATAATGAGGCTGTTCTTGAAAATGTGTTGTTG
CTGTGTCCTGGAGGAGACATGAGTTCGAGATGACCAATCTGCCTTTGAATCTGGAGGAAATAGGCAGAAACAA
AATGACTGTAGAACTTATTCTCTGTAGGCCAAATTTCAATTCAGCCACTTCTGCAGGATCCCTACTGCCAACCTG
GAATGGAGACTTTTATCTACTTCTCTCTCTGAAAGATGTCAAATCGTGGTTTAGATCAAATATATTTCAAGCTA
TAAAGCAGGAGGTTATCTGTGCAGGGGGCTGGCATCATGTATTTAGGGGCAAGTAATAATGGAATGCTACTAAG
ATACTCCATATTCTTCCCCGAATCACACAGACAGTTTCTGACAGGCGCAACTCCTCCATTTTCTCCCGCAGGTG
AGAACCCTGTGGAGATGAGTCAGTGCCATGACTGAGAAGGAACCGACCCCTAGTTGAGAGCACCTTGCAGTTCCC
CGAGAACTTTCTGATTCACAGTCTCATTTTGACAGCATGAAATGTCTCTTGAAGCATAGCTTTTTAAATATCTT
TTTCTTCTACTCCTCCTCTGACTCTAAGAATTCTCTCTTCTGGAATCGCTTGAACCCAGGAGCGGAGGTTGC
AGTAAGCCAAGGTCATGCCACTGCACCTTAGCCTGGGTGACAGAGCGAGACTCCATCTCAAAAAAAAAAAAAA

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FIGURE 4204

MPRRSLHAAAVLLLVIILKEQPSSPAPVNGSKWTFYFGPDGENSWSKKYPSCGGLLQSPIDLHSDILQYDASLTPLE
FQGYNLSANKQFLLTNNGHSVKLNLPDMHIQGLQSRYSATQLHLHWGNPNDPHGSEHTVSGQHFAELHIVHYN
SDLYPDASTASNKSEGLAVLAVLIEMGSFNPSYDKIFSHLQHVKYKGQEA FVPGFNIEELLPERTAEYYRYRGS
L TTPPCNPTVLWTVFRNPVQISQEQLLALETALYCTHMDDPSPREMINNFRQVQKFDERLVYTSFSQVQVCTAAGL
SLGIILSLALAGILGICIVVVVSIWLFRRKSIKKGDNKGVYKPATKMETEAHA

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FIGURE 4205

GCAGATCGCTTGCAGCTTGCTAGCTGTGTGGGCTGGGAGGTCTGGTAGGGCTGAGCTTGCAAGAGGATCAACATG
CCTTTGGCTAGAGATTTACTACATCCGTCCTTGGAAGAGGAAAAGAAAAACATAAAAAGAAACGCCTAGTACAA
AGTCCAAATTCCTTACTTTATGGATGTAAAATGTCCAGGTTGCTACAAGATCACCACGGTTTTTCAGCCATGCTCAG
ACAGTGGTTCCTTGTGTAGGTTGTTCAACAGTGTGTGCCAGCCTACAGGAGGAAAGGCCAGACTCACAGAAGGG
TGTTTCATTTAGAAGAAAGCAACACTTAATGATTCAAACAGCTTCCTGAATTTTAATTTTGTGTTGTCTCACAGAAA
GCCTTATCATAAATTCATAATTCATAATTAATTTACCAAGATAATGTAATTACATTTGGTTTTGTAAAGGTATACA
GCAGTAATCTCCTATTTTGGTGTGTCAGTTTTTCAATAAAGTTTTGATTATGGGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4206

MPLARDLLHPSLEEEKKKKHKKRLVQSPNSYFMDVKCPGCKYKITTTFSHAQTVVLCVGCSTVLCQPTGGKARLTE
GCSFRKQKH

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FIGURE 4207

CCGCGCGCTCGCCCCGCCGCTCCTGCTGCAGCCCCAGGGCCCCCTCGCCGCCGCCACCATGGACGCCATCAAGAAG
AAGATGCAGATGCTGAAGCTCGACAAGGAGAACGCCTTGGATCGAGCTGAGCAGGCGGAGGCCGACAAGAAGGCG
GCGGAAGACAGGAGCAAGCAGCTGGAAGATGAGCTGGTGTCACTGCAAAAAGAACTCAAGGGCACCGAAGATGAA
CTGGACAAATACTCTGAGGCTCTCAAAGATGCCCAGGAGAAGCTGGAGCTGGCAGAGAAAAAGGCCACCGATGCT
GAAGCCGACGTAGCTTCTCTGAACAGACGCATCCAGCTGGTTGAGGAAGAGTTGGATCGTGCCAGGAGCGTCTG
GCAACAGCTTTGCAGAAGCTGGAGGAAGCTGAGAAGGCAGCAGATGAGAGTGAGAGAGGCATGAAAGTCATTGAG
AGTCGAGCCCCAAAAGATGAAGAAAAAATGGAATTTCAGGAGATCCAAGTAAAGAGGCCAAGCACATTGCTGAA
GATGCCGACCGCAAATATGAAGAGGTGGCCCGTAAGCTGGTCATCATTGAGAGCGACCTGGAACGTGCAGAGGAG
CGGGCTGAGCTCTCAGAAGGCAAATGTGCCGAGCTTGAAGAAGAATTGAAAAGTGTGACGAACAACCTGAAGTCA
CTGGAGGCTCAGGCTGAGAAGTACTCGCAGAAGGAAGACAGATATGAGGAAGAGATCAAGGTCCTTTCCGACAAG
CTGAAGGAGGCTGAGACTCGGGCTGAGTTTGGCGAGAGGTCAGTAACTAAATTGGAGAAAAGCATTGATGACTTA
GAAGACGAGCTGTACGCTCAGAACTGAAGTACAAAGCCATCAGCGAGGAGCTGGACCACGCTCTCAACGATATG
ACTTCCATATAAGTTTCTTTGCTTCACTTCTCCCAAGACTCCCTCGTCGAGCTGGATGTCCACCTCTCTGAGCT
CTGCATTTGTCTATTCTCCAGCTGACCCTGGTTCTCTCTCTTAGCATCCTGCCTTAGAGCCAGGCACACACTGTG
CTTTCTATTGTACAGAAGCTCTTCGTTTCAGTGTCAAATAAACACTGTGTAAGCT

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FIGURE 4208

TTGATGCTCTAAATGCAGAATTAATGGAGACTTCAATGACTGATATGTCAATTCTTAGTTTCTTTGAACATTTCC
ATATTTCTCCTGTGAAGTTGCATTTGAGTTTGTCTTTGGGTTCCGGAGGTGAAGAATCAGACAAAGAAAAACAGG
AAATGTTTGCAGTTTCATTCTGTCAACTTGCTGTTGAAGAGCATAGGTGCTACTCTGACTGATGTGGATGACCTTA
TATTCAAACCTTGCTTATTATGAAATTCGATATCAGTTCTACAAGAGAGATCAGCTTATATGGAGTGTGTAGGC
ATTACAGTGAACAGTTCTTGAAACAGATGTATGTCCTTGATTGGGGTTAGATGTACTTGGAAACCCATTTGGAT
TAATTAGAGGTCTGTCTGAAGGAGTTGAAGCTTTATTCTATGAACCTTCCAGGGTGCTGTTCAAGGCCCTGAAG
AATTTGCAGAGGGGTTAGTGATTGGAGTGAGAAGCCTCTTTGGACACACAGTAGGTGGTGCAGCAGGAGTTGTAT
CTCGAATCACCGGTTCTGTTGGGAAAGGTTTGGCAGCAATTACAATGGACAAGGAATATCAGCAAAAAAGAAGAG
AAGAGTTGAGTCGACAGCCAGAGATTTTGGAGACAGCCTGGCCAGAGGAGGAAAGGGCTTTCTGCGAGGAGTTG
TTGGTGGAGTGACTGGAATAATAACAAACCTGTGGAAGGTGCCAAAAAGGAAGGAGCTGCTGGATTCTTTAAAG
GAATTGGAAGGGCTTGTGGGTGCTGTGGCCCGTCCAACCTGGTGAATCGTAGATATGGCCAGTAGTACCTTCC
AAGGCATTAGAGGGCAGCAGAATCAACTGAGGAAGTATCTAGCCTCCGTCCTCCCTCGCCTGATCCATGAAGATG
GCATCATTCGTCTTATGACAGACAGGAATCTGAGGGCTCTGACTTACTTGAGAATCATATCAAAAAGTTGGAAG
GAGAGACTTACCGATACCACTGTGCTATTCTGGAAGCAAGAAGACAATCCTTATGGTTACAAATAGGCGAGTGT
TGTGTATAAAGGAAGTTGAAATCCTGGGCCTTATGTGTGTAGACTGGCAATGTCCATTTGAAGATTTTGTATTTT
CTCCTAGTGTGCTGAAAATGTGCTAAAAATTTTCAAGGACACCGCCACAGCAGAGAGAGCATGTAATGCCATTGAGGATG
CACAGTCAACGAGACAGCAGCAAAAATTTGATGAAGCAGTCATCAGTGAGACTTCTCAGACCCCAATTGCCATCTT
AATCAGACCTCAGGGGCTCCAACAGGGAGAAAAACAATCACTGGTCTTGTCTATAAGTCACTCTGCTTTATC
TTGCTAAAGACAATTTTTCAAGCAATCCTTTAGTTTTAGTTTTCTGGAATAGCTAGTATTGGGTTTTCTAGTTTT
TTCACCTTTTAGTTTTTACTCTAATTTTGTAAACCATGTATATGCTAGCAGTCCACTTCTACGCCACCACCCAAAT
GGGTGACACCTTGAAGAAACGTCACCTCAAACCTCAGAATGAAATTTTCAATTAATTTAAATTTGTGAAGCAAAG
GTCAATAGGCTTATATTTAATTAAGCCTTACTGAAGAATAAGAAATGAGCTTAGAATGACTAGTGTCTTTGAA
AGGTTTTTTTTATTTTTGTTTTTTTTGGGGTTTTTTTTTTTTTTTTTTTGTAGACCGAGTCTTGCTCTGTCGCCCAGGCT
GGAATGCAGTGGTGCATCTTGGCTCACTGCAATCTCTGCCTCTCGGGTTCAAGCGGTTCTACTGCCTCAGCCTC
CTGAGTAGCTAGGATTACAGGTGTGTGCCACCACGCCTGGGTAATTTTTTTTTTTTTTTTGTATTTTTTAGTAGAGAT
GAGTTTCACCATGTTGGTCACTCTAGTCTCGAATCCTGACCTTGTGATCCGCATGCCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACCACGGCCCGCCAAAAGGCTTTAACCCATGAACAAATGTTGGATCCTGACATTT
TGTTTTAAGAGTGATTTGTTCAATAATTGAAGTGAAGTAACTTCTTGGTAAACCAGGTAATTGAATGAAGAAAGG
TCACTAAAGGGAGAAATGACATGTTTTCTATTTCTTTTCATGAAAACACTGTTTTTCCCCCTAATAAAGCATAT
TTTACTTTGGTGCTTATTTTTCTCCTTGCACTCTAATAAAAAATCTGGACAATCAAACCTTAAATAGCTACA
CTCTGCCCTCTGTAATGTAGCATTCAAAAAATTTGGAAGTATTTACATCCTCTTTCAAGATGAGCTTATATGAC
ACAATTATTATTGCTGATACATGAAAATACTGCACCTTAAAGTTTCTCAAGACTCTGAAATATGTAAATTTCAAT
ATTTTTATATTTCCAGAAATTGTTTCTTACAGGTTGAAAGTCTTTTAAGGGCATCACAAATTAACATTTACTCCT
AATGCACGCCTAGAATGTATTTTAAATACTTACTAAGAAGAATGAAATTTCTTTGGTTGTTTTATATATAAATAA
GGCATATATAATGACACTGTGTTCTGTGAGGGAGCAGGCCCTGTGAGAATCAATTCAGGACAGTATTTTTTTTTG
TCCTTTCTCCATCCTTGATCAGAGATAAACTATTAACCTTTAAAAATACTCAAAAAATATGTAAGTTTTTTGGT
TGAACCTTTAGATTTGCTCATAATGTTTAAACATAACAACATTTATTTCAAATCACTGAATTCATGGAGATGTGGA
CACGCTTGGTTTGCTCTATTTTTGTTTATGTGTGATAGTGGTCTGTCATCATCATTCATGTTTTTTAAGGCCTG
GTCATAAAACCTTTAAATTTTACTAGTGTACTTAAATGTATATTCTAAAAAGAGAATGCAGTAACTAATGCCCTAA
ATGTTTGATCTCTGTTTGTCTATTCTTTTCAAATTTATTTTTCTGTAAAGTATAATATATAAACTTCTTGC
TTAAATTGAATTTCTATATTAGTGGTTAATTGCAGTTTATTAAAGGGATCATTATCAGTAAATTCATAGCAACTG
TTCTAGTGTTTTGTGTTTTTAAACAGAATTAGGAATTTGAGATATCTGATTATATTTTTTCATATGAATCACAGC
TGTTGACAATGTCCCATATATTTAAGAAATTATATCATACTGATACTATTTGTAACATTTTGATTTGATTTAATC
TCCAGGGACAGAAATAATTCATTGGTAAAGTGAATAATGCGTTTTTTAAAAATGCTTTGAGAGGTAATTACTTG
CATATGAGAGAAATAAAACATTTGGCACATTGTTTACAGGTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4209

METSMTDMSILSFFEHFHISPVKLHLSLSLGSGGEESDKEKQEMFAVHSVNLLKLSIGATLTDVDDLIFKLAYYE
IRYQFYKRDQLIWSVVRHYSEQFLKQMYVLVLGLDVLGNPFGLIRGLSEGVEALFYEPFQGAVQGPEEFAEGLVI
GVRSLFGHTVGAAGVVSRTGSVGKGLAAITMDKEYQQKRREELSRQPRDFGDSLARGGKGFRLRGVVGVTGII
TKPVEGAKKEGAAGFFKGIGKGLVGAVARPTGGIVDMASSTFQGIQRAAEESTEEVSSLRPPRLIHEDGIIRPYDR
QESEGSDLLENHIKKLEGETYRYHCAIPGSKKTILMVTNRRVLCIKEVEILGLMCVDWQCPFEDFVFPPSVSENV
LKISVKEQGLFHKKDSANQGCVRKVYLKDTATAERACNAIEDAQSTRQQKLMKQSSVRLLRPQLPS

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FIGURE 4210

GCGGCGGCGGCGGCGGCGGCGGTGACGGCCGGGAAGGGTCAGTTGGAGGCAGGCGCTCGCTGAGGCAAAAGGAGG
CGCTCGGCCCCGCGGCTGACAGGGACTTAGCCCGCAGAGATCGACCCCGCGCGCTGACCCACACCCACCCACT
CATCCATCTATCCACTCCCTGCGCCGCTCCTCCACCCCTGAGCAGAGCCGCGGAGGATGATAAACACCCAGGAC
AGTAGTATTTTGCCTTTGAGTAACTGTCCCGAGCTCCAGTGCTGCAGGCACATTGTTCCAGGGCCTCTGTGGTG
TCCTGATGCCCCCTACCCACTGTGCGAAGATCCCCGGTGGGCGAGGGGGCGGCAGGGATCCTTCTCTCTCAGCTCT
AATATATAAGGACGAGAAGCTCACTGTGACCCAGGACCTCCCTGTGAATGATGGAAAACCTCACATCGTCCACTT
CCAGTATGAGGTCACCGAGGTGAAGGTCTCTTCTTGGGATGCAGTCCCTGTCCAGCCAGAGCCTGTTTGTAGAAAT
CCCAGATGGATTATTAGCTGATGGGAGCAAAGAAGGATTGTTAGCACTGCTAGAGTTTGCTGAAGAGAAGATGAA
AGTGAACATATGTCTTCATCTGCTTCAGGAAGGGCCGAGAAGACAGAGCTCCACTCCTGAAGACCTTCAGCTTCTT
GGGCTTTGAGATTGTACGTCCAGGCCATCCCTGTGTCCCTCTCGGCCAGATGTGATGTTTATGTTTATCCCT
GGACCAGAACTTGTCCGATGAGGACTAATAGTCATAGAGGATGCTTTACCCAAGAGCCACAGTGGGGGAAGAGGG
GAAGTTAGGCAGCCCTGGGACAGACGAGAGGGCTCCTCGCTGTCTAGGGAAGGACACTGAGGGGCTCAGGGTGAG
GGTTGCCTATTGTGTTCTCGGAGTTGACTCGTTGAAATTGTTTTCATAAAGAACAGTATAAACATATTATTAC
ATGTAATCACCATAAGTAAATGAAGATGTTTATGAACTGGCATTAGAAGCTTTCTAAACTGCGCTGTGTGATGTG
TTCTATCTAGCCTAGGGGAGGACATTGCTTAGAGGGGGAGGGACTGTCTGGGTTTACGGGGCATGGCCTGGAGGGC
TGGTGGGCAGCACTGTGAGGCTCAGGTTTCCCTGCTGTTGGCTTTCTGTTTTGGTTATTAAGACTTGTGTATTTT
CTTTCTTTGCTTCTGTACCCCAAGGGGCTCCTGAGTATAGGCTTTTTCAGTCCCTGGGCAGTGTCTTGTAGTTGT
TTTTTGACACTCTTACCTGGGCTTCTCTGTGTGCATTGCGTCTGGCCTGGAGTAAGCAGGTCCGACCCCTCGTT
CTTTACAGCTTAGTGTTATTCTGGCATTGTTGTTAAGCTGGCTTAATCTTGTTTAATGTTATCAGTACATTTTAA
TAGGGGCATTGAAATTTACTCCCACCACCAGGGCTTTTTTGGGGGATGCCTGGGCCTTTAAACACTAGCCAAAC
TCTAATTAATTCTCAAATCACTGCCAGGAGTTCTTGCTCCTGGCTGCAGGCCAGGCCCAAGGTCTCCTTCTTG
GGGTCACAAACAGCAGTAAGGAAGAGGAATATATAGCAACTCAGGGCCTGGGAATTGTGGGGCAATCCGTTCTTA
GGGACTGGATACTTCTGGCTGGCTGAGTATAGTACTAGCTGCCTCCCCACCAGGTTCCGAGTAGTGTCTGAGACT
CTGCTCTGCAGGGCCTAGGGTAGCGCTGGGAGTGTAGAAGTGGCCTGCCCTTAAGTGTCTTCACTAAACAGCTTT
TTCTAAGGGGAGAGCAAGGGGGAGAGATCTAGATTGGGTGAGGGGGACGGGGATGTCAGGGAGGCAAGTGTGTTG
TGTTACTGTGTCAATAAACTGATTTAAAGTT

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FIGURE 4211

AGACAGAGTCTCACTCTGCCGCCAGGCTGGAGTGCAGTGGTGTGATCTGGGCTCACTGCAACCTCTGCCTCCTG
GGTTCAAGCGATTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGATTACAGTGCGTCACCATGCCCCGGCTAATTTTT
GTATTTTTAGTGGAGATGGTGTCTTCCATGTTGACCAGGCTAGTCTCAAACCTCCTGACTTCAGGTGATTACCCC
GCCTCAGCTTCCCAAAGTGCTGGGATTACAGGCACGAGCCATCATGCCCCGCCATCAGTTCAATTAAATCTAGAT
ATCACATTCTTCTATCCTTTTTTATTATACATGTGATGATATGGGATGTTGGTGGTAAATGTAACGTGGAGGAA
CAAGACATATGTAGGTACACTCCTTGACTGCACACGACATGATTGGGCACCCCCAAGGTTCTGTGACTCCCCGAC
CAGTGACCTGGAAATGCGCAATGGCCGGGGTAGAGGCAAACGCATGCGTCCCAACAGTAATACACCTGTCAATGA
GACAGCCACAGCCTCTGACAGCAAAGGGACCAGTAACAGCAGCAAAACCCGGGCAGGAGCCAATAGCAAAGGCCG
TCGGGGCAGCCAGAATTCTTCAGAGCACCGCCCACCTGCCAGCAGCACTTCTGAGGATGTCAAGGCCAGCCCTTC
CTCAGCTAATAAGCGGAAAAACAAACCCCTTTCAGACATGGAGCTGAATTCTAGCTCAGAGGACTCCAAAGGGAG
CAAGCGTGTCCGTACTAATTCCATGGGCTCAGCCACTGGCCCCCTTCTGGGACAAAGGTAGAACCCACTGTTCT
GGACAGAACTGCCCCCTCCCCCGTCCTAATTGACTGTCCCCACCCAACTGCAACAAGAAGTACAAGCACATCAA
TGGACTTAAGTACCACCAAGCTCATGCCATACAGATGATGACAGCAAGCCGGAAGCGGATGGGGACAGTGAGTA
CGGAGAGGAACCTATTCTCCATGCAGATCTTGGGAGCTGCAACGGTGCATCTGTCTCACAAAAAGGTTCTTGTC
CCCTGCCCCGCTCAGCTACCCCCAAAGTTGACTTGTAGAGCCCCATAGCCCTTCTCCTTCAAGCAAATTCAGCAC
AAAAGGCCTCTGTAAGAAAAAGTTGAGTGGGGAAGGGACACAGACCTTGGGGCCTTATCCAATGATGGCTCTGA
TGATGGACCCTCAGTGATGGATGAAACAAGCAATGATGCCTTTGATTCTTTAGAAAGGAAGTGTATGG

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FIGURE 4212

MIGH PQSVTPRPVTWKCAMAGVEANACVPTVIHL SMRQPQLTAKGPVTA AKPGQEP IAKAVGAARILQST AHL
PAALLRMSRPALPQLISGKTNPFTWS

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FIGURE 4213

CTCTCTCCGGTCCGTGCCTCCAAGATGACAAAGAAAAGAAGGAACAATGGTCGTGCCAAAAGGGCCGCGGCCAC
ATGCAGCCTATTGCTGCACTAACTGTGCCCCGATGCGTGCCCAAAGACAAGGCCATTAAGAAATTCGTCATTGCA
AACATAGTGGAGTCCGCAGCAGTCAGGGACATTTCTGAAGCGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTG
TATGTGAAGCTGCATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGC
AAGGACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCCCACGTCCCCACCAAAGCCCATGTAAGGA
GGTGAGTTCTTAAAGACTGAAGACAGGCTATTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

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FIGURE 4214

GTGAAACACCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTGTGTTGAACATGGTGCGGACTAA
AGCAGACAGTGTTCAGGCACCTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGTTCTTCCAC
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTTGCCT
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCTAAAGATTCTGAAAAAGAGAA
TCAGATTCCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA
CACAAATGATGAAAAAGAATAGAACTTTCTCATTCACTTTGAATAACGTCTCCTTGTTTACCCTGGTATTCTAG
AATGTAAATTTACATAAAATGTGTTTGTCCAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACCTTAGCTTAGTATTCA
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTGTTGATTA
TTGGAATGGTGCCATATTGTCACCTCTTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT
CAGTATTAATT

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FIGURE 4215

MVRTKADSVPGTYRKVVAAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD
SEKENQIPEEAGSSGLGKAKRKACPLQPDHTNDEKE

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FIGURE 4216

AATATGGTGCTAAAAGAACTCCTTACCTTTCTCTGACTACAATTTATTTGGACATACTTTTGTATTGAAGAGAGG
TATACATACTGAAGCTACTTGCTGTACTATAGGAGACTCTGTCTGTAGGATCATGGACCATCCTAGTAGGGAAA
AGGATGAAAGACAACGGACAATAACCCATGGCACAAAGGAGTGCACACTGCTCTCGACCATCTGGCTCCTCAT
CGTCCTCTGGGGTTCTTATGGTGGGACCCAACCTTCAGGGTTGGCAAGAAGATAGGATGTGGGAACCTTCGGAGAGC
TCAGATTAGGTAAAAATCTCTACACCAATGAATATGTAGCAATCAAACCTGGAACCAATAAAATCACGTGCTCCAC
AGCTTCATTTAGAGTACAGATTTTATAAACAGCTTGGCAGTGCAGGTGAAGGTCTCCACAGGTGTATTACTTTG
GACCATGTGGGAAATATAATGCCATGGTGTGGAGCTCCTTGGCCCTAGCTTGGAGGACTTGTGTTGACCTCTGTG
ACCGAACATTTACTTTGAAGACGGTGTAAATGATAGCCATCCAGCTGCTTTCTCGAATGGAATACGTGCACTCAA
AGAACCTCATTTACCGAGATGTCAAGCCAGAGAACTTCCTGATTGGTCGACAAGGCAATAAGAAAGAGCATGTTA
TACACATTATAGACTTTGGACTGGCCAAGGAATACATTGACCCCGAAACCAAAAAACACATACCTTATAGGGAAC
ACAAAAGTTTAACTGGAAGTCAAGATATATGTCTATCAACACGCATCTTGGCAAAGAGCAAAGCCGGAGAGATG
ATTTGGAAGCCCTAGGCCATATGTTTCATGTATTTCTTCGAGGCAGCCTCCCTGGCAAGGACTCAAGGCTGACA
CATTAAAAGAGAGATATCAAAAAATTGGTGACACCAAAAGGAATACTCCCATTGAAGCTCTCTGTGAGAACTTTC
CAGAGGAGATGGCAACCTACCTTCGATATGTGAGGCGACTGGACTTCTTTGAAAAACCTGATTATGAGTATTTAC
GGACCCTCTTCACAGACCTCTTTGAAAAGAAAGGCTACACCTTTGACTATGCCTATGATTGGGTGGGAGACCTA
TTCCTACTCCAGTAGGGTCAGTTCACGTAGATTCTGGTGCATCTGCAATAACTCGAGAAAGCCACACACATAGGG
ATCGGCCATCACAAACAGCAGCCTCTTCGAAATCAGAGCCTTAGGACTGTTACAGCTGAGCATTATGATGTTAACA
ACTCAGCCATCTGGCACAGGGGAAGAGGCACCTAAACAGATTCTTCTGGACAAAAGTCACATATGAGCAAGATCA
GAATAGTAGCAGATGTAAAAAGCAGAATGTATCATCAGAGCGCCGAGGAGAGTGGGAAATTCAGCCAGCCGGCA
GACCAATACCTCATACCTAACGTCTCACTTGGCTGCAGACCGCCATGGGGGATCAGTGCAGGTGGTTAGCTCAAC
CAATGGAGAGCTGAATGTTGATGATCCACGGGAGCCCACTCCAATGCACCAATCACAGCTCATGCCGAGGTGGA
GGTAGTGGAGGAAGCTAAGTGCTGCTGTTTCTTTAAGAGGAAAAGGAAGAAGACTGCTCAGCGCCACAAGTGACC
AGTGCCTCCCAGGAGTCTCAGGCCCTGGGGACTCTGACTCAATTGTACCTGCAGCTCCTGCCATTTCTCATTGG
AAGGGACTCCTCTTTGGGGGAGGGTGGATATCCAACTAAAAAGAAGAAAACAGATGCCCCAGAAGGGGCCAGT
GCGGGCAGCCAGGGCCTAGTGGGTCAATTGGCCATCTCCGCCTGCCTAAGGCTCTGAGCAGGTCCCAGAGCTGCTG
TTCCTCCACTGCTTGCCCATAGGGCTGCCTGGTTGACTCTCCTTCCCATTGTTTACAGTGAAGGTGTCATTACACA

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FIGURE 4217

MDHPSREKDERQRTTKPMAQRS AHCSRPSGSSSSSGVLMVGNFRVGGKIGCGNFGELRLGKNLYTNEYVAIKLE
PIKSRA PQ LHLEYRFYKQLGSAGEGLPQVYYFGPCGKYNAMVLELLGPSLEDLFDLCDRTFTLKT VLMIAIQLLS
RMEYVH SKNLIYRDVKPENFLIGRQGNKKEHVIHIIDFGLAKEYIDPETKKHIPYREHKSLTG TARYMSINTHLG
KEQSRDDLEALGHMFMYFLRGSLPWQGLKADTLKERYQKIGDTKRNTPIEALCENFPEEMATYLRVRRLDFFE
KPDYEYLR TLFTDLFEKKGYTFDYAYDWVGRPIPTVGSVHVDSGASAITRESHTHRDRPSQQQPLRNQSLRTVT
AEHYDVNNSAIWHRGRGT

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FIGURE 4218

GGCACGAGGACGGCGCCCGCCGCCCGCCCGGAGCCCGCGAGCAACCCCAAGTCCCCCCCCACCCGCGCGTGCGGGCG
CCGGCTCCCTAGCCACCGCGGCCCCACCCTCTTCCGGCCTCAGCTGTCCGGGCTGCTTTTCGCCTCCGCCTGTGGA
TGCTGCGCCTCTCCGAACGCAACATGAAGGTGCTCCTTGCCGCCGCCCTCATCGCGGGGTCCGTCTTCTTCTGC
TGCTGCCGGGACCTTCTGCGGCCGATGAGAAGAAGAAGGGGCCAAAGTCACCGTCAAGGTGTATTTTGACCTAC
GAATTGGAGATGAAGATGTAGGCCGGGTGATCTTTGGTCTCTTCGGAAAAGACTGTTCCAAAAACAGTGGATAATT
TTGTGGCCTTAGCTACAGGAGAGAAAAGGATTTGGCTACAAAAACAGCAAATTCCATCGTGTAATCAAGGACTTCA
TGATCCAGGGCGGAGACTTCACCAGGGGAGATGGCACAGGAGGAAAGAGCATCTACGGTGAGCGCTTCCCCGATG
AGAACTTCAAACCTGAAGCACTACGGGCCTGGCTGGGTGAGCATGGCCAACGCAGGCAAAGACACCAACGGCTCCC
AGTTCTTCATCACGACAGTCAAGACAGCCTGGCTAGATGGCAAGCATGTGGTGTTTGGCAAAGTTCTAGAGGGCA
TGGAGGTGGTGCGGAAGGTGGAGAGCACCAGACAGACAGCCGGGATAAACCCCTGAAGGATGTGATCATCGCAG
ACTGCGGCAAGATCGAGGTGGAGAAGCCCTTTGCCATCGCCAAGGAGTAGGGCACAGGGACATCTTCTTTGAGT
GACCGTCTGTGCAGGCCCTGTAGTCCGCCACAGGGCTTTGAGCTGCACTGGCCCCGGTGCTGGCATCTGGTGGAG
CGGACCCACTCCCCTCACATTCCACAGGCCCATGGACTCACTTTTGTAACTCCTACCAACCCTGACCAATA
AAAAAAATGTGGGTTTTTTTTTTTTTTTAAATAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4219

MLRLSERNMKVLLAAALIAGSVFFLLLPGPSAADEKKKGPKVTVKVYFDLRI GDEDVGRVIFGLFGKTVPKTVDN
FVALATGEKGFGYKNSKFHRVIKDFMIQGGDFTRGDGTGGKSIYGERFPDENFKLKHYGPWVSMANAGKDTNGS
QFFITTVKTAWLDGKHVVFGKVLEGMEVVRKVESTKTDSRDKPLKDVIIADCGKIEVEKPFIAIAKE

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FIGURE 4220

TGCCTTTCGCTGCTTGTTGGGGTTACAGGTGAAGGGGTTATGGGGTGAAGAACAACCCAGGGGCCAGCGCTTGGCC
TTCCCGCCACCGTGGCGGCCGCCCGCGCTGCTGTGAGGCGCCAGTTCCGGGGCGCTGCTCCCGGCCTCCCTC
GCTCTGAGGCTCGGGGTCCCCAGCTCCGCGTAAACTGCACGATTTTCGCCCTCTGCTCAGCTCCCTCTGCCCCCT
CTTCCAAGAGAGACTTCCAGATCCACATTTTCTTGACTGATTTTAAAGCATTTCCTCGTTTATAGCTGTCTGT
TTGCAATTCTGATTGGGAACACTGGGATCATTTTCATCATGCCGACAGTGGTGGTAATGGATGTATCCCTTTCCAT
GACCCGACCTGTGTCTATTGAGGGGTCCGAGGAATACCAGCGTAAGCACCTAGCAGCCCATGGTTTAACGATGCT
GTTTGAGCACATGGCCACAAATTACAAGCTTGAATTTACAGCACTTGTGGTTTTTTCATCACTTTGGGAGTTGAT
GGTCCCCTTACGAGAGATTATAATACCCTACAGGAAGCACTAAGTAATATGGATGATTATGACAAAACCTGCTT
GGAGTCTGCATTAGTTGGTGTGTGCAATATCGTTCAGCAAGAATGGGGTGGTGCAATTCCTTGCCAGGTTGTCCT
GGTGACAGACGGCTGTCTTGGCATTGGTAGAGGGTCACTGCGACATTCCCTAGCCACTCAAAATCAACGAAGTGA
GAGCAACAGGTTTCCACTACCTTTTCCCTTTCCCATCTAAGTTATATATCATGTGCATGGCGAATTTGGAGGAGCT
CCAGAGCACCGATTTCCTTGGAATGCCTTGAACGTCTCATAGATTTAAACAATGGTGAAGGGCAGATTTTTACTAT
TGATGGCCCCCTGTGCTTGAAGAATGTACAGTCTATGTTTGGAAAACCTGATAGATTTGGCATATACGCCCTTTCCA
TGCTGTTCTCAAGTGTGGCCACCTAACTGCTGTATGTACAAGTCTTCCCCAGGCCAGAACCTTTTGTGTAGATGA
AGAAAATTGATCCTATCCCTAAAGTCATTAACACAGATTTGGAAATAGTGGGATTTATTGATATAGCTGATATTTT
AAGTCCCCCAGTTCTGTCCAGACATCTGGTCTTACCTATAGCACTTAACAAAGAAGGTGATGAGGTGGGTACTGG
CATCACTGATGACAATGAAGATGAAAATTCAGCCAATCAGATTGCAGGCAAAATACCCAACCTTTTGTGTCTGTCT
CCATGGTAGCCTAAAAAGTGAAGGAATGGTAGCGATTGTTCAATTAGGTCTGAATGGCATGGAATGCTCTACTC
CCAAGCTGACAGCAAGAAGAAAATCAAACCTCATGATGTCTCTCTTTGAGCCTGGCCAGAACCTCTCCCATGGC
TAGGGAAAAATGGCACAGTTGGGTCTTATTTAGATGCTAAAGAAAACCTTATGGCGAGGATGACAATAAGAGTC
CATTCCCCCTGCAGCCCAAAAACAAACGCAGTTATGCCCAGAATGTGACTGTCTGGATCAAACCCAGCGGCCTGC
AGACAGATGTACAGAAGATTTTAAGAAATGCAAGGAACTACCTGAAAAAACACAGACATTCTATAAGGAGCTGA
ACCGTTTGCAGAAAGGCCGCTCTAGCCTTTGGTTCCTGGACCTGCTGAAAGGGGTGGCTGACATGCTGGAAAGGG
AATGCACACTGCTGCCTGAGACAGCCACCCTGATGCTGCATTCCAGCTGACCCATGCTGCCAGCAGCTCAAGC
TGGCCAGTACCGGCACCTCTGAGTATGCCGCTTATGACCAGAACATCACACCTTTGCACACGGACTTCTCTGGGA
GCAGCACTGAAAGAATTTGAACTGACTTTTGGAGCTTTCTTTCTTTTTCATTTCAACTGAAATGCTTTAGGT
AAAAACCTTTCCAGTATGTTTACCTCTAGAATAGCCACCCAAAGACCTTCTGAGGCTGCCTCAGAAGCACCCT
TGCTGTTTTGAATGACTCTACTAGTATGAGAAGGATGTGAAGGTGGTTGGCTGGTTGGGCTTTAACTTCTGGGA
TTCATAATTTTTAAGCTTGGAAGATAGCTGCTGTTCCCATGATGGGCACATTTCTGAGAAGCTTGAATGACTGA
TGAGCATAGAGACCCCTGCCTTCTCAGGAAACCTGACCGGCAGGGGCTCTCTGGCTTCTGAAAGCTTACCT
CTTCCCTCGTTTATATCTCAACTGTAAGGGCATTTTCAAGCTTCTGTTTATGGAATGAGCAACTCAGACTGTCTG
GAGCTTGCTGAGTACAAACACACCACCCTAAGTTTCAAGACTTTCTTAGAACTTGGGCAAAATGTGGTGGTAA
CTCTTAAGTGCTTTTGGTATCTCTTGAGATTCTAACTTTTAAAGAGCAACCATTAAATGTGTAAATGATTCCTAT
TATTCAAGGTTTTTTTTTAATGAAATAAAATATTTGATTTCTAG

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FIGURE 4221

GAGCGTGGGGTATCTCGAGGTGCCGGGTTCAGGCGCTCAGGAGCGCTAGGGTTTGAGGCCTGCTTTCTGCTCGC
GCCAGCAGAGCACTACCTGAGGCAGCGAGGCGCAGCGAGCCTAGCCTCCCCGCGCCCTGGGCAGTGTGGCCATGG
AGAATCAGGTGTTGACGCCGCATGTCTACTGGGCTCAGCGACACCGCGAGCTATATCTGCGCGTGGAGCTGAGTG
ACGTACAGAACCCTGCCATCAGCATCACTGAAAACGTGCTGCATTTCAAAGCTCAAGGACATGGTGCCAAAGGAG
ACAATGTCTATGAATTTACCTGGAGTTCTTAGACCTTGTGAAACCAGAGCCTGTTTACAAACTGACCCAGAGGC
AGGTAAACATTACAGTACAGAAGAAAGTGAGTCAGTGGTGGGAGAGACTCACAAAGCAGGAAAAGCGACCACTGT
TTTGGCTCCTGACTTTGATCGTTGGCTGGATGAATCTGATGCGGAAATGGAGCTCAGAGCTAAGGAAGAAGAGC
GCCTAAATAAACTCCGACTGGAAAGCGAAGGCTCTCCTGAAACTCTTACAACTTAAGGAAAGGATACCTGTTTA
TGATAATCTTGTGCAATTCCTGGGATTCCTCGGATCTTTGTCAACCTGACTGTGCGATTCTGTATCTTGGGAA
AAGAGTCCTTTATGACACATTCCATACTGTGGCTGACATGATGATTTCTGCCAGATGCTGGCAGTTGTGGAAA
CTATCAATGCAGCAATTGGAGTCACTACGTACCGGTGCTGCCTTCTCTGATCCAGCTTCTTGGAAGAAATTTTA
TTTTGTTTATCATCTTTGGCACCATGGAAGAAATGCAGAACAAAGCTGTGGTTTTCTTTGTGTTTTATTTGTGGA
GTGCAATTGAAATTTTCAGGTACTCTTTCTACATGCTGACGTGCATTGACATGGATTGGAAGGTGCTCACATGGC
TTCGTTACACTCTGTGGATTCCCTTATATCCACTGGGATGTTTGGCGGAAGCTGTCTCAGTGATTGAGTCCATTC
CAATATTCAATGAGACCGGACGATTGAGTTTACATTGCCATATCCAGTGAAAAATCAAAGTTAGATTTTCTTTT
TTCTTCAGATTTATCTTATAATGATATTTTTAGGTTTATACATAAAATTTTCGTACCTTTATAAACAGCGCAGAC
GGCGCTATGGACAAAAAAGAAAAAGATCCACTAAAAAGAAAGATTTAGATGGCTTCTTGCCAGTTTGAGCCTAA
TCTGATTCTTACAGTTTACCTTCTTGAACCAATGTAAAAGTTTTTTAATGTTAAATGATTAAATTCTCAGTGA
GGCTATCTTCTTTTCCCCAGTAACATTCCCTGAATTTACTGTTATCTTATTGTAGTACTTGATGACATGGATTTC
CTGATATCTGATGAGAGGTTTATTCTTGTGTATTGAGTTAATGACACCAAAGGCTCAGCCACCCCAACCCTAT
CTCATGTTGAGTCTGTCTAATACATGCCAGAGATTTTTTTTTTCAAAGTGCTTTATCCCTACAATGTACTGACA
GTTCTTACAGTTGAGATTTGTTCTTTTCAGCTATTGCTTGTGAAAAAAGCAAGACTATGTCACCTCTATAGAAGG
CTGTTAAAGTGACTCAGGCA

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FIGURE 4222A

GGCACGAGGTCACCTGCCGTCCAGGTATCATCTAGTCTTCCCTCCGTCTCTGGGATGGGAACTCTTGTCTAGT
GATGTGACTCATTACGTGATCCCAGACTGGAAAGTTGTTCAAGATTATCTTGAGATCCTTGAGTTTCCTGAGTTG
AAGGGAATTATTTTCATGCAGACAGCTTGTCAAGCTGTGCAGCATCAAAGAGGCAGGAGACAGTATAACAACTG
CGAAACCTGCTGAAGGATGCGCGTCATGATTGCATTCTCTTTGCTAATGAATTCCAGCAATGCTGCTATCTGCCA
CGGGAAAGAGGAGAGTCCATGGAGAAGTGGCAGACCAGGAGCATATACAACGCAGCTGTTTGGTACTATCATCAC
TGCCAGGACAGGATGCCAATTGTTATGGTGACAGAAGATGAAGAGGCAATTCAGCAGTATGGAAGTGAACAGAA
GGAGTATTCGTGATTACTTTCAAGAATTACCTGGACAATTTCTGGCCTGATTTAAAAGCTGCCACGAGCTTTGT
GATTCTATCCTTCAGTCTCGACGGGAGAGAGAGAATGAGAGTCAGGAGAGCCATGGGAAGGAGTACCCAGAACAT
CTTCCCTGGAAGTGTTAGAAGCTGGGATTAAATCTGGACGCTATATCCAGGGAATTCTGAATGTCAACAAACAC
AGAGCCCCAAATAGAAGCTTTTGTTCGACTTCAAGGAGCCAGCAGTAAAGATTCAGATTTAGTCAGTGACATCCTA
ATCCACGGGATGAAGGCTCGAAACCGCTCAATTCATGGAGATGTGGTAGTTGTGGAGCTGCTTCTTAAAAATGAA
TGGAAGGAAGAACCCTAGCCCTGTGTGAGAATGACTGTGACGACAAGGCTTCGGGCGAGTCCCCAAGTGAGCCC
ATGCCTACAGGTCGAGTGGTGGGCATACCTTCAGAAGAACTGGCGGGATTATGTGGTGACATTTCCGTCCAAAGAA
GAGGTCCAATCTCAGGGCAAAAATGCTCAGAAAATCCTGGTTACACCTTGGGATTACAGAATTCCTCAAAATTCGA
ATTAGCACTCAGCAAGCAGAAACCTCCAGGACTTCAGGGTGGTCTGTCGCATCGATTCTGGGAGTCAACATCT
GTGTATCCAAACGGACATTTTGTGCGTGTTTTAGGAAGAATCGGAGATCTGGAAGGGGAAATTGCAACCATCCTG
GTGGAAAACAGTATTTTCAAGTATTCTTTCTCAGAAGCTCAGATGTGTGAGATGCCAGTAAACACACCAGAAAGT
CCCTGGAAGGTGAGTCTGAAGAGGAACAAAAACGTAAAGACTTGAGGAAAAGCCATCTCGTATTACAGCATTGAC
CCCCAAGGTTGTGAAGATGTGGATGACACACTCTCAGTCAGAACCTTAAATAATGGCAACCTGGAACCTGGGGTC
CACATCGCAGATGTAACACACTTTGTGGCACCAATTTCTTACATTGATATTGAAGCTAGAACAAGGGCCACCACT
TATTATCTAGCAGATCGTCGCTATGACATGCTGCCTTCCGTCTCAGTGCAGATTTGTGTTCCCTTCTGGGAGGC
GTTGATAGGTATGCTGTAAGCATCATGTGGGAAGTGGATAAAGCCTCTTATGAAATTAAGAAAGTGTGGTATGGC
AGAACCATTATTCGATCAGCATACAACTGTTCTATGAAGCAGCCCAAGAACTACTGGATGGAACTTAAGCGTT
GTTGATGATATTCCAGAATTCAAAGACTTGGATGAGAAGAGCAGACAAGCCAAGCTGGAGGAGTTGGTGTGGGCA
ATTGGAAGCTGACCGACATAGCTCGCCATGTCAGAGCTAAACGAGACGGATGTGGTGCCCTGGAAGTGGAAAGG
GTAGAGGTTTGGTACAGCTAGATGACAAAAGAACATTACAGACCTCATCCCCAAGCAGCCCCCTGGAAGTCCAC
GAGACAGTGGCTGAATGCATGATCCTGGCCAACCACTGGGTGCGCCAAAAGATCTGGGAGAGCTTCCCTCATCAG
GCCTTGCTGCGCCAGCACCTCTCCACACCAGGAGTTCTTTTCAGAACTCCGGGAATGTGCTAAAGCCAAAGGC
TTCTTCATAGATACAGGTCCAATAAAACACTGGCTGATTCTCTGGATAATGCGAACGACCCCCACGATCCCATT
GTGAACAGGCTACTGCGCTCCATGGCCAGCAGGCCATGTGCAATGCTCTGTACTTCTCCACCGGATCCTGTGCG
GAGGAGGAGTTCCATCATTACGGTCTTGCAATTAGATAAATATACCCACTTTACTTCTCCAATAAGAAGATATTCA
GATATTGTAGTACACCGCTTGTTAATGGCAGCCATTTCAAAGATAAGAAAATGGAATTAAGGGAAATCTGTTT
AGCAACAAAGATCTTGAGGAATTATGCAGACATATCAACAACAGAAACCAAGCAGCACAGCATTCTCAGAAGCAG
TCTACTGAGCTCTTCCAGTGCATGTACTTCAAAGACAAAGACCCTGCCACCGAGGAGCGTTGCATATCTGACGGA
GTTATTTATTCAATTAGAACAATGGTGTGCTTCTATTATACCAAGGTTTGGGATTAAAGGTGCTGCTTATCTA
AAAAATAAAGATGGTTTAGTCACTCATGTGGCCAGATAGCTGTTCTGAATGGAAACCAGGATCCCTTCAACGA
TTTCAAACAAAATTACCTCTACTACAACAGATGGGGAATCTGTTACGTTCCATTTGTTTGACCATGTAACCGTA
AGAATATCCATACAGGCCTCACGTTGCCATTCTGATACAATCAGACTTGAAATAATTAGTAACAAACCATAACAAG
ATACCAAATACAGAACTTATTCATCAGAGTTCCCTTGTCTGAAGAGTGAGTTAGTGAAAGAAGTAACATAATCT
GTGGAAGAAGCTCAGCTTGCCCAAGAAGTCAAAGTAAACATCATTACAGGAGGAATATCAAGAATATCGCCAAACA
AAGGGAAGGAGCCTATACACACTTCTAGAGGAGATACGGGACCTAGCTCTCTCTGGATGTTTCAAACAATTATGGA
ATATGAGAGGCTCTTACTTCACTAAGAGCTGTCTATGTGAATGTTTTACAGTCTTTTCAAACCTTAACATTTAAT
GTGTGTCACTCAGTGCTCTAGTCGATCAGGACTGGGTAGCTATTTTCGCATATATGTAAATGTTCTCAGCCGGGC
ACGGTGGCTCACGCCTGTAACCCACGCACTTTGGGAGGCTGAGGCGGGCGGATCACGAGGTGAGGAGATTGAGAC
CATCCTGGCTAACACGGTGAAACCCAGTCTCTACTAAAAATACAAAAATTAGCCCGGCGTGGTGGCATGCGCCTG
TAGTCCCAGCTACTTTGGGAGGCTGAAGCAGGAGAATTGCCTGAACCCAGGAAGAGGAGGTTGAGTGAGCCGAGA
TCGCACCACTGCATTCCAGCCTGGGCAACAGAGCGAGACTCCATCTCAAAAAAAAAAAAAAAAAAAAAAGTT
CTCTCATTCATTAAAGTTGCATTAAATAAAGTATAATTAGGTCACTATGGAACAGTTTTTCAGTAATGAGTGGAC

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FIGURE 4222B

AGTAAGTGGTGGCTCTGCAGATGGCCCCTTTCTAATAAGTTAATAAACCCGAAATTACTGGTTAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4223

MQTACQAVQHQRGRQYNKLRNLLKDHDCILFANEFQCCYLPRERGESMEKWQTRSIYNAAVWYYHHCQDRM
PIVMVTEDEEAIQQYGSETEGVFVITFKNYLDNFWPDLKAAHELCDLSILQSRRENERESQESHGKEYPEHLPLEV
LEAGIKSGRYIQGILNVNKHRAQIEAFVRLQGASSKSDLVSDILIHGMKARNRSIHGDVVVVELLPKNEWKGRT
VALCENDCDDKASGESPEPMPTRVVGILQKNWRDYVVTFPSKEEVQSOGKNAQKILVTPWDYRIPKIRISTQQ
AETLQDFRVVVRIDSWESTSVYPNGHFVRVLGRIGDLEGEIATILVENSISVIPFSEAQMCEMPVNTPESPWKVS
PEEEQKRKDLRKSHLVFSIDPKGCEVDVDTLSVRTLNNGNLELGVHIADVTHFVAPNSYIDIEARTRATTYYLAD
RRYDMLPSVLSADLCSLLGGVDRYAVSIMWELDKASYEIKKVWYGRTIIRSAYKLFYEAQELLDGNLSVDDIP
EFKDLDEKSRQAKLEELVWAI GKLTDIARHVRAKRDGCGALELEGVEVCVQLDDKKNIHDLIPKQPLEVHETVAE
CMILANHWVAKKIWESFPHQALLRQHPPPHQEFFFSELRECAKAKGFFIDTRSNKTLADSLDNANDPHDPIVNRLL
RSMATQAMSNALYFSTGSCAEFEFHHYGLALDKYTHFTSPIRRYS DIVVHRLLMAAISKDKKMEIKGNLFSNKDL
EELCRHINNRRNQAQHSQKQSTELFQCMYFKDKDPATEERCISDGVIIYSIRTNGVLLFIPRFGIKGAAYLKNKDG
LVISCGPDSCEWKPGSLQRFQNKITSTTTDGESVTFHLFDHVTVRISIQASRCHSDTIRLEIISNKPKIPNTE
LIHQSSPLLKSELVKEVTKSVEEAQLAQEVKNIIQEYQEYRQTKGRSLYTLLEEIRDLALLDVSNNYGI

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FIGURE 4224

GAACCGCCCCGCGCTGGGAATTTGCGGCGGCCTCCGCCGGGGCAGCCGAGCTGAACCGGTCTCTTCCTCGGAAAG
GCAGGGCCGAGGGGCTGCGGGGCAGCCATGGAGGCGACGCGGAGGCGGCAGCACCTGGGAGCGACGGGCGGCCC
AGGCGCGCAGCTGGGCGCCTCCTTCCTGCAGGCCAGGCATGGCTCTGTGAGCGCTGATGAGGCTGCCCGCACGGC
TCCCTTCCACCTCGACCTCTGGTTCTACTTCACACTGCAGAACTGGGTTCTGGACTTTGGGCGTCCCATTGCCAT
GCTGGTATTCCCTCTCGAGTGGTTTCCACTCAACAAGCCAGTGTGGGGACTACTTCCACATGGCCTACAACGT
CATCACGCCCTTTCTCTTGCTCAAGCTCATCGAGCGGTCCCCCGCACCCCTGCCACGCTCCATCACGTACGTGAG
CATCATCATCTTCATCATGGGTGCCAGCATCCACCTGGTGGGTGACTCTGTCAACCACCGCCTGCTCTTCAGTGG
CTACCAGCACCACTGTCTGTCCGTGAGAACCCCATCATCAAGAATCTCAAGCCGGAGACGCTGATCGACTCCTT
TGAGCTGCTCTACTATTATGATGAGTACCTGGGTCACTGCATGTGGTACATCCCCTTCTTCCTCATCCTCTTCAT
GTACTTCAGCGGCTGCTTTACTGCCTCTAAAGCTGAGAGCTTGATTCCAGGGCCTGCCCTGCTCCTGGTGGCACC
CAGTGGCCTGTACTACTGGTACCTGGTCAACGAGGGCCAGATCTTCATCCTCTTCATCTTCACCTTCTTCGCCAT
GCTGGCCCTCGTCCTGCACCAGAAGCGCAAGCGCCTCTTCCTGGACAGCAACGGCCTCTTCCTCTTCTCCTCCTT
CGCACTGACCTCTTGCTTGTGGCGCTCTGGGTGCGCTGGCTGTGGAATGACCCTGTTCTCAGGAAGAAGTACCC
GGGTGTCATCTACGTCCCTGAGCCCTGGGCTTTCTACACCCTTTCAGTCAGCAGTCGGCACTGAGTCCCTGGCAC
CAGGCTCTGGCGCTCTGCTGGGTGGGAGGGTGGGCCATGGAGGGCATCTGAATACAGGAGTAGGGGGGTGTGGG
TGTGTAACCAGAGACCGAGAGCATGAGTGGGGTGTGCCTCGTGTGCGTGGATTCTGTGTGTGTGTGTGTCTTGT
ATATGTGTGCGCAGAGTGCATCATTTTCAGACTCTACTATTTCCGTCAAGTTTCTGTTTGATTTGGATCATCTCA
GGATCGGATTCTGTTTTAGAGTGTCTTGGGCCAGGATCCGGGGCCCTGCCCTCCTCTGCACCTGACCACACTCC
CTACTCAGGGCTAGTCTGTTCTTCCCGACATCTTCTGGTAGCCGTGCAGGAGAGGGCTGGGTGGGGCAGAGGCC
AGGAGGGGACCTGGTGTGTACCTGCCCCACCACTGGCTCATCCCTCAGGCCACCCCTGACCCTACATTACATAG
GTTACGTCAGCCTACTGTGGCTGTTGAGCAAAGCATTTCTCCTTTCTGGGCCTCATTGCACTAGATGGGCCTGT
GGTCCCAAAGTAGGTCAGTAGGTTGGGGTTGCTGACACCCCTTGGGTGCAGCTTTGGGACAGATGAGTGGCTCTG
TCCTGTCACTGCCCTCTCCCTGCCTGGGGGCTATGTGCACTCCAGACCCCTGCCCAGGCTCAGGCCCATGAGGTA
TGGAGACACCTGGCCCCCAGGAGCTGGAGGCACCGCCCACTCCCCTGGCATTCCAGCTTTGCAGGTGACCCTCC
TCTACCCAAAGCTCTGTCCCCCTGCTCCCACTCCAGAAGAACTGCGGCACGTGCTTCGGGCAGCCTAGCCACAGG
CTTTGAGCGCCTGCATTCTGGGGGCTGGAGGGTGGGGTGCCAAAGGCCCTGAGCAAAGCCAGAGCTCCTCTCA
TCAAAGCCTTTACAAGGTACTGGGCCAGAGGCTTTGCCTTGACAGAGTGGCCAGGGTTTCAAGGGAGGAGGAA
CCTCCCCCTACCTAGGACCCTTCCTGTGGGGGTCTACAGAGTCAGGGACAGAAGGGAAGGGACCCACAGGAAGT
CACAGTGGTGGCCAGGGATGTGTACGCCCCAGCCACGGGGACGCGGGATTCAAGAATGAAGTAAATACAGTCAC
AGCCCCAAA

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FIGURE 4225

MEATRRRQHLGATGGPGAQLGASFLQARHGVSADAEARTAPFHLDLWFYFTLQNWVLD FGRPIAMLVFPLEWFP
LNKPSVGDYFHMAYNVITPFLLLKLIERSPRTLPRSITYVSIIIFIMGASIH LVGDSVNHRLLFSGYQHHL SVRE
NPIIKNLKPETLIDSFELLYYYDEYLGHCMWYIPFFLILFMYFSGCFTASKAESLIPGPALLLVAPSGLYYWYLV
TEGQIFILFIFTFFAMLALVLHQKRKRLFLDSNGLFLFSSFALTLLLVALWVAWLWNDPVL RKKYPGVIYVPEPW
AFYTLHVSSRH

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FIGURE 4226

GGCACGAGGCGCTCTTGCGGGAGCGTTCCGCATCGCCCCGGGGGCCCCCTACGCGAGGATCTCCGGGGCCGTTGGC
AGCGCCTGGCACTTCTGAGCTCGGCGGACGAGAGCCTGCAGGTTTCCTCCAGTCAGGGACGGCGAAGGGCGGAAA
GCGCAGGAGGAGGAGGAGTGTAGGCCCTTAGGCCGGGTGGGCGGGTCAGGAGAGACGCGCCCATCTTTCGCCATCC
GGGGTGCAGGAGGTCCTCTCGGGACCCGGCGGCGACCCGTAGCTCGGGCACGCGCCTGTGCGATCCCGCAGGAA
GGAGGGGTCCGGCCTGAGGCCCGGGGCGGCGTCCGCCATGGAGATCCCTCGGTCCAGGGCCGGCGCCTGGGACC
TGGCGGGCGGCCCTGACCGCCTTCCCTCCCTGCGCGGGCTGGGTGCGGACGTGCCCTTCGCGGCACTCGGCCTCC
TCTGCGTCTCCGCCTTCCCTGGGCGGCACTGCTGCCTGGGCGCGGCGGCGGCGACGGCGCCCTGTTGAATGGGCT
GTGAGGGCCAGGTTTAAAGCGCTGGCGAACGCGGCCCTCCGGGGGCGCACGGCAGCTGCAGCGGTGGCGACCAAA
CGGGTGTGGAGTTGGCGGCGGCCATGGAGGGCCTGGCTGGCTATGTATACAAGCGGCCAGCGAGGGCAAGGTG
CTGACTCTGGCGCCTTGCTTCTCAACCGGTCTGAAAGCGACATCCGCTATCTGCTTGGCTATGTCAGCCAGCAG
GGAGGGCAGCGCTCCACGCCCCCTCATCATCGCAGCCCGCAATGGACACGCAAAGGTGGTACGCTTGCTCTTAGAA
CATTACCGGGTGCAGACTCAGCAGACTGGCACCGTCCGCTTCGACGGGTATGTCATTGATGGTGCCACTGCTCTT
TGGTGTGAGCTGGAGCAGGACATTTTGAAGTTGTTAACTTCTAGTCAGCCATGGAGCCAACGTGAACCATACC
ACAGTAACTAATTCAACCCCCCTGCGGGCAGCATGCTTGTATGGCAGACTGGACATTGTGAAATACTTGGTTGAA
AATAATGCCAACATCAGCATTGCCAACAAATATGACAACACCTGCCTAATGATTGCGGCATATAAGGGACACACT
GATGTGGTCAGATACCTTTTAGAACACGCTGCTGATCCCAATGCCAAAGCACATTGTGGAGCCACAGCATTGCAC
TTTGCAGCTGAAGCTGGGCACATAGATATTGTGAAAGAGCTGATAAAATGGCGTGCTGCTATAGTAGTGAATGGC
CATGGGATGACGCCATTGAAAGTAGCTGCCGAAAGCTGTAAAGCTGATGTCGTAGAACTGTTACTCTCTCATGCT
GATTGCGACCGAAGAAGTCGGATTGAAGCTTTGGAACCTTGGGTGCCCTCCTTTGCAAATGACCGTGAGAACTAT
GACATCATAAAGACATACCCTATCTATATTTAGCCATGTTAGAGAGGTTCCAAGATGGTGATAACATTCTCGAA
AAAGAGGTTCTTCCACCAATCCATGCTTATGGGAATAGAACTGAATGTAGAAATCCTCAGGAACGGAGTCCATT
CGGCAAGACAGAGATGCTCTTCATATGGAAGGCCTTATAGTTCGGGAACGGATTTTAGGTGCTGACAATATTGAT
GTTTCTCATCCCATCATTTACAGAGGAGCTGTTTATGCGGATAATATGGAATTTGAGCAGTGTATCAAGTTGTGG
CTTCATGCCCTGCACCTCAGACAAAAAGGTAACAGGAACACCCACAAGGATCTTCTTCGATTTGCTCAAGTTTTC
TCACAAATGATACATTTGAATGAAACTGTGAAGGCCCCAGACATAGAATGTGTTTTGAGATGCAGTGTTTTGGAA
ATAGAACAAAGTATGAACAGAGTGAAAAATATTTAGATGCTGATGTCCACAATGCTATGGACAATTATGAATGT
AATCTCTATACCTTTCTGTATTTAGTGTGCATCTTACCAAAACACAGTGCAGCGAAGAAGATCAGTGCAAAATT
AACAAGCAGATCTACAACCTGATTACCTTGATCCAGAACTCGTGAAGGTTTCACCTTGCTGCATCTGGCTGTC
AACTCCAATACTCCAGTTGATGATTTCCACACCAATGACGTCTGCAGCTTTCCAAATGCATTGTCACAAAGCTC
CTGCTGGACTGTGGTGCTGAGGTGAATGCCGTGGACAATGAGGGAAACAGTGCCCTTCATATTATCGTTCAGTAC
AACAGGCCCATCAGTGATTTTTTGACCTTGCCTCCATCATCATTAGCCTAGTTGAAGCCGGAGCTCACACTGAC
ATGACGAATAAACAGAATAAGACTCCGCTAGACAAAAGTACAACCTGGGGTATCTGAAATACTGCTTAAACTCAA
ATGAAGATGAGTCTCAAGTGCTGGCTGCCCGAGCAGTTCGGGCTAATGACATTAACCTACCAAGACCAGATCCCC
AGAACTCTTGAAGAGTTTGTGGATTTTCAATTAAGTGAAGTGGATATGTAAAGTCGTTTAAATGTGGTGCTAAAAAGT
AAAGGACTTTTAAATCACAAAAA

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FIGURE 4227

MEGLAGYVYKAASEGKVLTLAALLLNRSSEDIRYLLGYVSQQGGQRSTPLIIAARNGHAKVVRLLLEHYRVQTQQ
TGTVRFDGYVIDGATALWCAAGAGHFEVVKLLVSHGANVNHTTVTNSTPLRAACFDGRLDIVKYLVENNANISIA
NKYDNTCLMIAAYKGHTDVVRYLLEQRADPNKAHCGATALHFAAEAGHIDIVKELIKWRAAIVVNGHGMTPLKV
AAESCKADVVELLLSHADCDRRSRIEAELELLGASFANDRENYDI IKTYHYLYLAMLERFQDGDNIKEVLPPIH
AYGNRTECRNPQELESIRQDRDALHMEGLIVRERILGADNIDVSHPIIYRGAVYADNMEFEQCIKLWLHALHLRQ
KGNRNTHKDLLRFAQVFSQMIHLNETVKAPDIECVLRCSVLEIEQSMNRVKNISDADVHNAMDNYECNLYTFLYL
VCISTKTQCSEEDQCKINKQIYNLIHLDPRTRREGFTLLHLAVNSNTPVDDFHTNDVCSFPNALVTKLLLD CGAEV
NAVDNEGNSALHIIQYNRPISDFTLHSIIISLVEAGAHTDMTNKQNKTPLDKSTTGVS EILLKTQMKMSLKCL
AARAVRANDINYQDQIPRTLEEFVGFH

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FIGURE 4228

CCTTTCCTCAGCTGCCGCAAGGTGCTCGGTCTCTCCGAGGAAGCTAAGGCTGCGTTGGGGTGAGGCCCTCACTT
CATCCGGCGACTAGCACCGCGTCCGGCAGCGCCAGCCCTACACTCGCCCGCGCCATGGCCTCTGTCTCCGAGCTC
GCCTGCATCTACTCGGCCCTCATTCTGCACGACGATGAGGTGACAGTCACGGAGGATAAGATCAATGCCCTCATT
AAAGCAGCCGGTGTAATGTTGAGCCTTTTTGGCCTGGCTTGTTTGCAAAGGCCCTGGCCAACGTCAACATTGGG
AGCCTCATCTGCAATGTAGGGGCGGTGGACCTGCTCCAGCAGCTGGTGCTGCACCAGCAGGAGGTCCTGCCCC
TCCACTGCTGCTGCTCCAGCTGAGGAGAAGAAAGTGAAGCAAAGAAAGAAGAATCCGAGGAGTCTGATGATGAC
ATGGGCTTTGGTCTTTTTGACTTAAACCTCTTTTATAACATGTTCAATAAAAAGCTGAACTTT

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FIGURE 4229

MASVSELACIYSALILHDDEVTVTEDKINALIKAAGVNVEPFWPGLFAKALANVNI¹GS²LICNVGAGGPAPAAGAA
PAGGPAPSTAAAPAEKKVEAKKEESEESDDDMGFG³GLFD

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FIGURE 4230A

CGCAGGTGGCAGGCAGGTGGGGCTGGTACAGCCCGCGCCGCTCTGCTGCAGCCGCTGCCGTCTACTCCTTGCGC
GCTGGCACTCCGCAGCCTTTAAGGTTTCGCGCGGGGGCCAGGCAAGAGTTAGCCATGAAGAGCCTCAAGTCCCGCC
TGAGGAGGCAGGACGTGCCCGGCCCGCGTCGTCTGGCGCCGCCGCCAGCGCGCATGCAGCAGATTGGAATA
AATATGATGACCGATTGATGAAAGCAGCAGAAAAGGGGGATGTAGAAAAAGTGACCTCAATCCTTGCTAAAAAGG
GGGTCAATCCAGGCAAACTAGATGTGGAAGGCAGATCTGTCTTCCATGTTGTGACCTCAAAGGGGAATCTTGAGT
GTTTGAATGCCATCCTTATACATGGAGTTGATATTACAACCAAGTGACACTGCAGGGAGAAATGCTCTTCACCTGG
CTGCTAAGTATGGACATGCATTGTGCCTACAAAACTTCTACAGTACAATTGTCCCACTGAGCATGCAGACCTGC
AGGGAAGAACTGCACTTCACGATGCCGCAATGGCAGATTGTCTTCTAGCATAACAGCTGCTTTGTGACCATGGGG
CCTCTGTGAATGCCAAAGATGTAGACGGGCGGACACCACTTGTCTGGCTACTCAGATGAGTAGGCCAACAAATAT
GTCAACTGCTGATAGATAGAGGAGCGGATGTTAATTCCAGAGACAAACAAAACAGAACTGCCCTCATGCTAGGTT
GCGAATATGGTTGCAGAGATGCAGTAGAAGTCTTAATTAATAATGGTGCTGATATAAGCTTGCTGGATGCGCTTG
GCCATGATAGTTCTTACTATGCAAGAATTGGTGACAATCTGGACATTCTAACCTTGTGGAAGACTGCATCGGAAA
ATACCAACAAAGGGAGAGAACTTTGGAAGAAAGGGCCATCTTTGCAACAGCGAAATTTGACACACATGCAAGATG
AAGTAAATGTGAAGTCACATCAGAGGGAGCATCAAAATATTCAGGATTTGGAGATTGAAAATGAAGATTTGAAAG
AGAGGTTGAGAAAAATTCAGCAAGAACAAAGAATACTTTTGATAAAGTCAATGGTTTACAGTTACAGCTGAATG
AGGAAGTTATGGTTGCTGATGATCTGGAAGCGAGAGAGAAAAGCTGAAGTCCCTTTTGGCAGCTAAAGAAAAGC
AACATGAAGAAAGCTTAAGGACTATTGAGGCTCTGAAAAATAGATTTAAATATTTTGAGAGTGATCATTTAGGAT
CAGGAAGTCATTTAGTAACCGAAAAGAAGATATGCTTCTTAAACAAGGTGAGATGTATATGGCAGACTCACAGT
GTACTTCCCCAGGTATACCAGCCCATATGCAAAGCAGATCTATGTTAAGACCTCTGGAACATCTTTACCCAGTC
AAACGTCATACTCTGAAAATGAAATTTTAAAGAAAGAGTTAGAAGCAATGCGAACTTTCTGTGAGTCAGCAAAAC
AAGACCGACTGAAGCTCCAAAATGAACTGGCACACAAAGTGGCAGAATGCAAAGCTTTAGCATTAGAATGTGAAA
GGGTCAAGGAGGATTCAGATGAACAGATAAAGCAATTAGAAGATGCATTAAAAGATGTGCAGAAGAGGATGTATG
AGTCAGAAGGTAAAGTTAAACAAATGCAGACCCATTTTCTTGCCCTTAAAGAACACTTAACAAGTGAAGCAGCCT
CAGGGAATCACAGACTAACCGAGGAAGTGAAGGATCAGTTGAAAGACTTGAAAGTAAATATGAAGGTGCTTCAG
CAGAAGTGGGGAAATTAAGAAACCAATCAAACAAATGAGATGATAGTAGAAGAGTTTAAGAGGGATGAAGGCA
AGCTGATAGAAGAAAATAAGCGATTACAGAAGGAACCTTAGTATGTGTGAAATGGAGCGAGAGAAGAAAGGAAGAA
AGGTACAGAGATGGAAGGCCAGGCAAAAGAATTGTGAGCGAAGTTGGCCCTTTCCATTCCAGCTGAAAAATTTG
AAAACATGAAGAGCTCATTATCAAATGAAGTGAATGAGAAAGCAAAAAAATTAGTAGAAATGGAAGAGAACATG
AAAAATCACTTAGTGAAATTAGACAGTTAAAGAGAGAACTTGAGAATGTTAAGGCCAAGCTTGCTCAGCAGTCA
AACCAGAGGAACATGAACAGGTTAAGAGCAGATTAGAACAGAAATCAGGAGAACTTGGAAGAAGATCACTGAGT
TAACATTGAAAAATCAGACACTACAAAAGGAAATTGAAAAAGTTTATTTGGATAATAAGCTCCTCAAGGAGCAAG
CACATAACTTAACAATTGAAATGAAAAATCATTATGTTTCTTTAAAGTAAGTGAAGACATGAAAAAGTCACATG
ATGCAATTATTGATGATCTTAATAGAAAGCTTTTAGATGTAACACAAAAATATACAGAAAAGAAAGTTGGAATGG
AGAAATTGCTACTGGAAAATGACAGCTTAAGTAAGGATGTAAGCCGCCTAGAAACTGTGTTTGTACCTCCTGAGA
AACATGAAAAAGAGATAATAGCTCTGAAATCCAATATTGTTGAACTTAAGAAACAGCTGTCTGAACCTTAAGAAAA
AATGTGGTGAAGACCAGGAGAAAATACACGCTCTCACATCTGAAAACACTAAGTTGAAGAAGATGATGAGTAATC
AGTATGTGCCAGTTAAAACCCATGAAGAGGTTAAAATGACACTGAATGACACGTTAGCCAAAACCTAACAGAGAAT
TATTAGATGTGAAGAAAAAATTTGAAGATATAAATCAGGAATTTGTAATAAAGATAAGAAATGAAATATTAA
AAAGAAACCTGGAAAACACTCAGAACCAATAAAAGCTGAGTACATCAGCCTGGCAGAGCACGAGGCAAGATGA
GCTCGCTAAGTCAGAGCATGAGAAAGGTGCAGGATAGTAATGCTGAAATCTTGGCCAACTACAGAAAAGGCCAAG
AAGAGATTGTGACACTGCATGCCGAAATTAAGCCCAGAAAGAGGAGCTCGACACAATACAAGAAATGCATTAAGG
TAAATACGCCCAATTTGTGAGCTTTGAGGAGTGCGAGAGAAAAATTTAAAGCAACAGAGAAAAGAACTAAAAGACC
AGTTATCAGAGCAGACACAAAAGTATAGTGTGAGTGAAGAAGAGTCAAGAAAAACAAGCAAGAGAAATGACAAGT
TAAAGAAGGAGATTTTACCCTTCAGAAAGATTTGAGAGATAAGACAGTTCTCATTTGAGAAAGTCTCATGAAATGG
AAAGAGCATTAAAGCAGAAAAACAGACGAGCTAAACAAACAGTTAAAAGACTTGTCACAGAAATACACGGAAGTAA
AGAATGTGAAAGAGAAGCTAGTAGAAGAAAATGCCAAACAGACTTCTGAGATACTTGACAGTCAAAAATCTTTTGC
AAAAACAACATGTTCCATTGGAACAGGTTGAGGCTCTGAAAAATCTCTTAATGGCACAATTGAAAAATCTAAAGG
AAGAACTGAAGAGTATGCAAGGTGTTACGAGAAAAGAGCAGCAGACAGTGACCAAACTGCATCAATTGTTGGAGA

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FIGURE 4230B

ATCAAAGAAGCTCTTCTGTACCCCTGGCAGAGCATTTCAGATTAAAGAAGCATTTGAGAAAGAAGTTGGAATCA
TAAAAGCCAGCTTGAGAGAAAAGGAAGAAGAAAGCCAAAACAAAATGGAAGAAGTCTCCAACTTCAGTCGGAGG
TTCAGAATACTAAACAAGCATTAATAAATTAAGAGACTAGAGAGGTAGTTGACTTGCTCTAAATATAAAGCAACAA
AAAGTGATTGGAGACACAGATTCTAGCTTAAATGAAAAATTGGCCAATCTGAATAGAAAGTATGAGGAAGTAT
GTGAGGAAGTTTTGCATGCCAAAAGAAGGAAATATCTGCAAAAGATGAGAAGGAATTACTGCATTTTCAGCATTG
AGCAAGAAATTAAGGATCAGAAGGAACGATGTGATAAGTCCTTAACAACAATCACAGAGTTACAAAGAAGAATAC
AAGAATCTGCTAAACAAATAGAAGCAAAAGATAATAAGATAACTGAACTGCTTAATGATGTGGAAAGATTAAAC
AGGCACTCAATGGCCTTTCCCAACTCACCTACACAAGTGGGAACCCACCAAGAGGCAGAGCCAGCTGATTGACA
CTCTGCAGCACCAAGTGAAATCTCTGGAGCAACAGCTGGCCGATGCTGACAGACAGCACCAAGAAGTAATTGCAA
TTTATCGGACACACCTTCTTAGTGCTGCACAGGGTCACATGGATGAAGATGTTTCAGGAGGCTCTGCTCCAGATCA
TACAAATGCGGCAGGGGCTTGTGTGCTAGCCGTTAGCACTGACTGCCAGTATCTGTTTTATCTTGCTGGTGCTGA
ACATTCTTTGTGCAACTCCATGGTCTTTCTGGGCTTACTGTGCTGGTATAATTAAAATAAAATATATTTTGTTCT
T

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FIGURE 4231

MKSLKSRLRRQDVPGPASSGAAAASAHADWNKYDDRLMKAAERGDVEKVTSILAKKGVNPGKLDVEGRSVFHVV
TSKGNLECLNAILIHGVDITTSDTAGRNALHLAAKYGHALCLQKLLQYNCPTTEHADLQGR TALFLKAMADCPSSI
QLLCDHGASVNAKDVDGRTPVLATQMSRPTICQLLIDRGADVNSRDQNR TALMLGCEYGCRAVEVLIKNGAD
ISLLDALGHDSSYYARIGDNL DILTLLKTASENTNKGRELWKKGPSLQQRNLTHMQDEVNVKSHQREHQNIQDLE
IENEDLKERLRKIQQEQRIILLDKVNGLQQLNNEEVMVADDLESEREKLKSLLAKEKQHEESLRTIEALKNRFKY
FESDHLGSGSHFSNRKEDMLLKQGMADSQCTSPGIPAHMQSRSMRLRPLELSLPSQTSYSENEILKKELEAMR
TFCESAKQDRLKLQNELAHKVAECKALALECERVKEDSDEQIKQLEDALKDVQKRMYESEGKVKQMOTHFLALKE
HLTSEAASGNHRLTEELKDQLKDLKVYEGASAEVGKLRNQIKQNEMIVEEFKRDEGKLI EENKRLQKELSMCEM
EREKKGRKVTEMEGQAKELSAKLALSIPA EKFFENMKSSLSNEVNEKAKKLVEMEREHEKSLSEIRQLKRELENVK
AKLAQHVKPEEHEQVKSRL EQKSGELGKKITELTLKNQTLQKEIEKVYLDNKLLKEQAHNLTIE MNHYVPLKVS
EDMKKSHDAI IDDLNRKLLDVTQKYTEKKLEMEKLLLENDLSKDVSRLETVFPPEKHEKEIIALKSNIVELKK
QLSELKKKCGEDQEKIHALTSENTNLKKMMSNQYVPVKTHEEVKMTLNDTLAKTNRELLDVKKKFEDINQEFVKI
KDKNEILKRNLENTQNQIKA EYISLAEHEAKMSSLSQSMRKVQDSNAEILANYRKQEEIIVTLHAEIKAQKKELD
TIQECIKVKYAPIVSFE ECERKFKATEKELKDQLSEQTQKYSVSEEEVKKNQENDKLLKEIFTLQKDLRDKTVL
IEKSHEMERALS RKTDELNKQLKDL SQKYTEVKNVKEKLVEENAKQTSEILAVQNLLQKQHVPLEQVEALKKSLN
GTIENLKEELKSMQRCYEKEQQT VTKLHQ LLENQKNSSVPLAEHLQIKEAFEKEVGI IKASLREKEEESQNK MEE
VSKLQSEVQNTKQALKKLETREVVDLSKYKATKSDLETQISSNEKLANLNRKYEEVCEEVLHAKKKEISAKDEK
ELLHFSIEQEI KDQKERC DKSLTTITELQRRIQESAKQIEAKDNKITELLNDVERLKQALNGLSQLTYTSGNPTK
RQSQLIDTLQHVKSL EQQLADADRQHQEVI AIYRTHLLSAAQGHMDEDVQEALLQIIQMRQGLVC

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FIGURE 4232

GCAGTCACTGCCGACCGGCTGGCTGGGCTTGC GGCGTGAGGACCCCGGCGGCCGCGCAGTCCCGCGAGCC**ATGG**
CCCAGTCCGGCGGGGAGGCTCGGCCCGGGCCCAAGACGGCGGTGCAGATCCGCGTCGCCATCCAGGAGGCCGAGG
ACGTGGACGAGTTGGAGGACGAGGAGGAGGGGGCGGAGACTCGGGGCGCCGGGGACCCGGCCCGGTACCTCAGCC
CCGGCTGGGGCAGCGCGAGCGAGGAGGCCGAGCCGCGGGCACAGTGGCACCACTGCAAGTGGAGGTGAGAATG
AGCGTGAGGACCTGGAGCAGGAGTGGAAGCCCCCGGATGAGGAGTTGATCAAGAACTGGTGGATCAGATCGAAT
TCTGCTTTTCTGTATGAAAACCTGGAGAAGGACGCCCTTTTGTCTAAACACGTGAGGAGGAACAAGCTGGGATATG
TGAGCGTTAAGCTACTCACATCCTTCAAAAAGGTGAAACATCTTACACGGGACTGGAGAACCACAGCACATGCTT
TGAAGTATTTCAGTGGTCCCTTGAGTTGAATGAGGACCACCGGAAGGTGAGGAGGACCACCCCGTCCCACTGTTCC
CCAACGAGAACCTCCCCAGCAAGATGCTCCTGGTCTATGATCTCTACTTGTCTCCTAAGCTGTGGGCTCTGGCCA
CCCCCAGAAGAATGGAAGGGTGCAAGAGAAGGTGATGGAACACCTGCTCAAGCTTTTGGGACTTTTGGAGTCA
TCTCATCAGTGC GGATCCTCAAACCTGGGAGAGAGCTGCCCCCTGACATCCGGAGGATCAGCAGCCGCTACAGCC
AAGTGGGGACCCAGGAGTGC GCCATCGTGGAGTTCGAGGAGGTGGAAGCAGCCATCAAAGCCCATGAGTTCATGA
TCACAGAATCTCAGGGCAAAGAGAACATGAAAGCTGTCTGATTGGTATGAAGCCACCCAAAAAGAAACCTGCCA
AAGACAAAAATCATGACGAGGAGCCCACTGCGAGCATCCACCTGAACAAGTCCCTGAACAAGAGAGTCGAGGAGC
TTCAGTACATGGGTGATGAGTCTTCTGCCAACAGCTCCTCTGACCCCGAGAGCAACCCACATCCCTATGGCGG
GCCGACGGCACGCGGCCACCAACAAGCTCAGCCCGTCTGGCCACCAGAATCTCTTTCTGAGTCCAAATGCCTCCC
CGTGCACAAGTCCCTTGGAGCAGCCCTTGGCCCCACGCAAAGGCGTTTCCAGAAAGTCCCACTGGCGGAGGAAG
GTAGACTGAACTGCAGCACCAGCCCTGAGATCTTCCGCAAGTGTATGGATTATTCCTCTGACAGCAGCGTCACTC
CCTCTGGCAGCCCTTGGGTCCGGAGGCGTCGCCAAGCCGAGATGGGGACCCAGGAGAAAAGCCCGGTACGAGTC
CCCTGCTCTCCCGGAAGATGCAGACTGCAGATGGGCTACCCGTAGGGGTGCTGAGGTTGCCAGGGGTCTTGACA
ACACCAGAGGATTTTCATGGCCATGAGAGGAGCAGGGCCTGTGTAT**TAA**ATACCTTCTATTTTTTAATACAAGCTCCA
CTGAAAACCACTTCGTTTTCAAGGTTCTGACAAACACCTGGCATGACAGAAATGGAATTCGTTCCCTTTGAGAG
ATTTTTTATTCATGTAGACCTCTTAATTTATCTATCTGTAATATACATAAATCGGTACGCCATGGTTTGAAGACC
ACCTTCTAGTTCAGGACTCCTGTTCTTCCCAGCATGGCCACTATTTTGATGATGGCTGATGTGTGTGAGTGTGAT
GGCCCTGAAGGGCTGTAGGACGGAGGTTCCCTGGGGGAAGTCTGTTCTTTGGTATGGAATTTTTCTCTCTCTTT
GGTATGGAATTTTTCCCTTCAGTGACTGAGCTGTCTCGATAGGCCATGCAAGGGCTTCCTGAGAGTTCAGGAAA
GTTCTCTTGTGCAACAGCAAGTAGCTAAGCCTATAGCATGGTGTCTTGTAGGACCAAATCGATGTTACCTGTCAA
GTAAATAATAATAAAACACCCAACTGGGAGTGCTG

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FIGURE 4233

MAQSGGEARPGPKTAVQIRVAIQEAEDVDELEDEEEGAETRGAGDPARYLSPGWGSASEEEPSRGHSGTTASGGE
NEREDLEQEWKPPDEELIKKLVDQIEFCFSDENLEKDAFLKLVRRNKLGYVSVKLLTSFKKVKHLTRDWRTTAH
ALKYSVVLELNEDHRKVRRTTPVPLFPNENLPSKMLLVYDLYLSPKLWALATPQKNRQVEKVMHLLKLFGTFG
VISSVRILKPGRELPPDIRRISSRYQVGTQECAIVEFEEVEAAIKAHEFMITESQGKENMKAVLIGMKPPKKKP
AKDKNHDEEPTASIHNLKSLNKRVEELQYMGDESSANSSSDPESNPTSPMAGRRHAATNKLSPSGHQNLFLSPNA
SPCTSPWSSPLAQRKGVSRKSPLAEEGRNLCSTSPEIFRKCMDYSSDSSVTPSGSPWVRRRQAEMGTQEKSPGT
SPLLSRKMQTADGLPVGVRLRLPRGPDNTRGFHGHRSRACV

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FIGURE 4234

ATGTCCATCAGGGTGACCCAGAAGTCCTACAAGATGTCCACCTCTGGCCCCCGGGCCTTCAGCAGCTGCTCCTAC
ACAAGCTCTACACACCCAAAGAAGGAGCAGATCAAGGCCCTCAACAACAAGTTTGCCTCCTTCATAGACAAGGTA
TGGTTCCTGGAGCAGCAGAACAAGATGCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGAAGATGGCTCGGAAC
AACAAGAACAACATGTTCCAGAGCTATATCAACAACCTTAGGTGGCAGCTGGAGACTCTGAGCCAGGAGAAGCTG
AAGCTGGAGGTGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAACAATATGAGGATGAGATCAAT
AAGCGTACAGAGGTGGAGAATGAATTTGTCCTCATCAAGAAGGATGTGGATGAAGCTTACATGAACAAGATAGAG
CTGGAGTCTTGCTTGGGAAGGGCTGACTGACGAGATGGACTTCCTCAGGCAGCTGTTTGAAGAGGAGATCTGGGAG
CTGCAGTCCCACATCTCGGACATATCTGTGGTGCTGTCCATGGACAACAGCTACTTCCTGGACACGGTCAGCATC
ATTGCTGAGGTCAAGGAGGAGATTGCCAACCGCAGCCAGGCGGAGGCTGAGAGCATGCACCAGATCAAGTATGAG
GAGCTGCAGACGCTGGCTGGGAAGCTTGGGCATGACCTGCAGCCTATAAAGACTGAGATCTCCGAGATGAACCTGG
AACATCAGCCGGCTCCAGGCTGAGATTAAGGGCCTCAAAGGCCAGATGGCTTCCCTGGAGGGCCACCATCGCAGAT
GTGGAGCAGCGTGGGGAGCTGGCCGTTAAGGATGCCAACGCCAAGCTGTCCGAGCTGGAGGGCTCTCTGCAATGG
GCCAGGCAGGATATGGTGTGGCAGCTGCGTGAGTACCAGGAGCTGATGAATGTCAAGCTGGCCTTGGGCATCAAA
ACTGCCACCTACAGGAAGCTGCTGGAGGGTGAGGAGAGCCGGCTGGAGTCTGGGATGCAGAACATGACAATCCAT
ACGAAGACCACCAGCGGCTATGCAGGTGGTCTGAGCTCCACCTATGGGGACCTCACAAGCCCCGGCCTCAGCTAC
AGCCTGGGCTCCAGCTTTGGCTCTGGCGCAGGCTCCAGCTCCTTCAGCCGCACCGGCTCCACCAGGGCTGTGGTT
GAAGAAGATTGA

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FIGURE 4235

MSIRVTQKSYKMSTSGPRAFSSCSYTSSTHPKKEQIKALNNKFASFIDKVVWFLEQQNKMLETKWSLLQQQKMARN
NKNMFMQSYINNLRWQLETLSQEKLKLEVELGNMQGLVEDFKNKYEDEINKRTEVENEFVLIKKDVDEAYMNKIE
LESCLEGLTDEMDFLRQLFEEIWEIQSHISDISVVLSDNSYFLDTVSIIEVKEEIANRSQAEAESMHQIKYE
ELQTLAGKLGHDLQPIKTEISEMNWNISRLQAEIKGLKGQMASLEATIADVEQRGELAVKDANAKLSELEASLQW
ARQDMVWQLREYQELMNVKLALGIKTATYRKLEGEESRLESGMQNMTIHTKTTSGYAGGLSSTYGDLTSPGLSY
SLGSSFGSGAGSSSFRTGSTRAVVEED

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FIGURE 4236

GCAGTACATTGAGCTCCACAGAGACAGCGCCAGGGCAAGTGAGAGCCGGACGGGCACTGGGCGACTCTGTGCCTC
GCTGAGGAAAAATAACTAAACATGGGCAAAGGAGATCCTAAGAAGCTGAGAGGCAAAATGTCATCATATGCATTT
TTTGTGCAAAACGTCGGGAGGAGCATAAGAAGAAGCACCCAGATGCTTCAGTCAACTTCTCAAGAGTTTTCTAAGA
AGTGCCCATATGAAAGAGAAATGAAAACCTACATCCCTCCCAAAGGGGAGACAAAAAGAAGTTCAAGGATCCC
AATGCACCCAAGAGGCCCTCCTTCGGCCTTCTTCTCTCTGCTCTGAGTATCGCCCAAAAATCAAAGGAGAACAT
CCTGGCCTGTCCATTGGTGATGTTGCGAAGAAACTGGGAGAGATGTGGAATAACACTGCTGCAGATGACAAGCAG
CCTTATGAAAAAGAAGGCTGCGAAGCTGAAGGAAAAATACGAAAAGGATATTGCTGCATATCGAGCTAAAGGAAAG
CCTGATGCAGCAAAAAAGGGAGTTGTCAAGGCTGAAAAAAGCAAGAAAAAGAAGGAAGAGGAGGAAGATGAGGAA
GATGAAGAGGATGAGGAGGAGGAGGAAGATGAAGAAGATGAAGATGAAGAAGAAGATGATGATGATGAATAAGTT
GGTTCTAGCGCAGTTTTTTTTTCTTGTCTATAAAGCATTTAACCCCCCTGTACACAACCTCACTCCTTTTAAAGAA
AAAAACTGAAATGTAAGGCTGTGTAAGATTTGTTTTTAAACTGTACAGTGTCTTTTTTGTATAGTTAACACACT
ACCGAATGTGTCTTTAGATAGCCCTGTCTGGTGGTATTTTCAATAGCCACTAACCTTGCTTGGTACAGTATGGG
GGTTGTAAATTGGCATGGAATTTAAAGCAGGTTCTTGTGGTGCACAGCACAAATTAGTTATATATGGGGATGG
TAGTTTTTTCATCTTCAGTTGTCTCTGATGCAGCTTATACGAAATAATTGTTGTTCTGTTAACTGAATACCACTC
TGTAATTGCAAAAAAAAAAAAAAAAAAGTTGCAGCTGTTTTGTTGACATTCTGAATGCTTCTAAGTAAATACAATTT
TTTTATTAGTATTGTTGTCCTTTTCATAGGTCTGAAATTTTTCTTCTTGAGGGGAAGCTAGTCTTTTGTCTTTGC
CCATTTTGAATCACATGAATTATTACAGTGTATATCTTTTCATATAGTTAGCTAATAAAAAGCTTTTGTCTACCC
ACCCTGCATATCATAATGAGGGTAAAGTTAAGTTGAGATAGTTTTTCATCCATACTGAACATCCAAAATCTTGAT
CAGTTAAGAAATTTACATAGCCCACTTACATTTACAACTGAAGAGTAATCAATCTACTCAAAGCATGGGATTA
CTAGAATCAAACATTTTGAAGTCTGTCTTGAAGGACTAATAGAAAAGTATGTTCTAACCTTTACATGAGGACT
CTATTCTTTAACTCCCATTAACCATGTAATGGCAGTTATATTTTGCAGTTCCACATTAAAGAAGACCTGAGAATG
TATCCCCAAAAGCGTGAGCTTAAATACAAGACTGCCATATTAAATTTTTTGTGACATTAGTCTCAGTGAAGAC
TATGAAAATGCTGGCTATAGATGTCTTTTCCATTTATCTAAATATGGACTGCTCAGGAAACGAGACTTTCCATT
ACAAGTATTTTTAATTAATTGGGCCAGCTTTTCAAACAAAGATGCCACATTCAAATAGGGTATATTTTCCTATA
TTACGGTTTGGCCCTTTATAAATCCAAGTAGATAGGAGGAAAGAAGACACTTAACTTTGCATCTCAGTATGAAT
TATTCAATTTATTTGAATGATTTTTCTTTACAAAACAACTCATCATTAGTCATGTTTATCTGCTTAGCAGTTTA
GGGAACAATTTGGCAATTTGTGGTTTTTCGAGATTATCGTTTTCTTAAAGTGCCAGTATTTTAAATAGCGTTCT
TATAATTTTACACGCTTTTGTGATGGAGTGCTGTTTTGTTATATAATTTTGAAGTTGGATTCTTCCATTTGCATT
TGTTTAIGTAATTTCAGGAGGAATACTGAACATCTGAGTCCTGGATGATACTAATAAACTAATAATTGCAGAGGT
TT

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FIGURE 4237

TTACAGGAAAAAGGCTCTTGCTATGAAAGTTAATCCATAAAATTACAAAAATGACTGTTTTGGCAGTACATTGAG
CTCCACAGAGACAGCGCCAGGGCAAGTGAGAGCCGGACGGGCACTGGGCGACTCTGTGCCTCGCTGAGGAAAAAT
AACTAAACATGGGCAAAGGAGATCCTAAGAAGCTGAGAGGCAAAATGTCATCATATGCATTTTTTGTGCAAACGT
CGGGAGGAGCATAAGAAGAAGCACCCAGATGCTTCAGTCAACTTCTCAAGAGTTTTCTAAGAAGTGCTCAGAGAG
GTGGAAGACCATTTCTGCTAAAGACAAAGGAAAAATTTCAAGATATGGCAAAGGTGGACAAGGCCCATTTATGAAAG
AGAAATGAAAACCTACATCCCTCCCAAAGGGGAGACAAAAAAGAAGTTCAAGGATCCCAATGCACCCAAGAGGCC
TCCTTCGGCCTTCTTCTCTTCTGCTCTGAGTATCGCCCCAAAAATCAAAGGAGAACATCCTGGCCTGTCCATTGG
TGATGTTGCGAAGAACTGGGAGAGATGTGGAATAACACTGCTGCAGATGACAAGCAGCCTTATGAAAAGAAGGC
TGCGAAGCTGAAGGAAAAATACGAAAAGGATATTGCTGCATATCGAGCTAAAGGAAAGCCTGATGCAGCAAAAAA
GGGAGTTGTCAAGGCTGAAAAAAGCAAGAAAAAGAAGGAAGAGGAGGAAGATGAGGAAGATGAAGAGGATGAGGA
GGAGGAGGAAGATGAAGAAGATGAAGATGAAGAAGAAGATGATGATGATGAATAAGTTGGTTCTAGCGCAGTTTT
TTTTTCTTGCTATAAAGCATTTAACCCCCCTGTACACAACCTCACTCCTTTTAAAGAAAAAAACTGAAATGTAAG
GCTGTGTAAGATTTGTTTTTAACTGTACAGTGTCTTTTTTTGTATAGTTAACACACTACCGAATGTGTCTTTAG
ATAGCCCTGTCTGGTGGTATTTTCAATAGCCACTAACCTTGCTTGGTACAGTATGGGGTTGTAAATTGGCATG
GAAATTTAAAGCAGGTTCTTGTTGGTGACAGCACAAATTAGTTATATATGGGGATGGTAGTTTTTTCATCTTCA
GTTGTCTCTGATGCAGCTTATACGAAATAATTGTTGTTCTGTAACTGAATACCACTCTGTAATTGCAAAAAAA
AAAAAAAGTTGCAGCTGTTTTGTTGACATTCTGAATGCTTCTAAGTAAATACAATTTTTTTTATTA

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FIGURE 4238

MLQSTSQEFSKKCSERWKTISAKDKGKFQDMAKVDKAHYEREMKTYIPPKGETKKKFKDPNAPKRPPSAFFLFCS
EYRPKIKGEHPGLSIGDVAKKLGEMWNNNTAADDKQPYEKKAACLKEKYEKDIAAYRAKGKPDAAKKGVVKAESK
KKKEEEEEDEEEDSWF

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FIGURE 4239

AGGTAATCTGTGAAAAATGGTTCGCTATTCACTTGACCCGGAGAACCCACGAAATCAGGCAAATCAAGAGGTTCC
AATCTTCGTGTTCACTTTAAGAACAACCTCGTGAACTGCTCAGGCCATCAAGGGTATGCATATACGAAAAGCCACG
AAGTATCTGAAAGATGTCACCTTTACAGAAACAGTGTGTACCATTCCGACATTACAACGGTGGAGTTGGCAGGTGT
GCGCAGGCCAAGCAGTGGGGCTGGACACAAGGTCGGTGGCCCCAAAAAGAGTGCTGAATTCTTGCTGCACATGCTT
AAAAACGCAGAGAGTAATGCTGAACTTAAGGGTTTAGATGTAGATTCTCTGGTCATTGAGCATATCCAAGTGAAC
AAAGCACCTAAGATGCACCGCCGGACCTACAGAGCTCATGGTCGGATTAACCCATACATGAGCTCTCCCTGCCAC
ATTGAGATGATCCTTACGGAAAAGGAACAGATTGTTCTAAACCAGAAGAGGAGGTTGCCCAGAAGAAAAAGATA
TCCCAGAAGAACTGAAGAAAACAAAACTTATGGCACGGGAGTAAATTCAGCATTAAAATAAATGTAATTAAAAG
G

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FIGURE 4240

MVRYSLDPENPTKSGKSRGSNLRVHFKNTRETAQAIGMHIRKATKYLKDVTLQKQCVFPRHYNGGVGRCAQAKQ
WGWTQGRWPKKSAEFLHMLKNAESNAELKGLDVDLSVIEHIQVNKAPKMHRRTYRAHGRINPYMSSPCHIEMIL
TEKEQIVPKPEEEVAQKKKISQKKLKKQKLMARE

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FIGURE 4241

GAATCAAAGTTCCTCTTGGGGAAATGGCAAGTCTTTAGGACAGGCGAGACCCCTGTATGAATAGTACCAAAGCATT
ACTGCATGGTAGAGAACACACTCAATTAAAAATGTTAAGCTATCTGAAAAATAAAATGTGCAAGTCTTCAGGATG
GCACAAAACAAAGGTTAATGCTTCTTGGGGCACATTTCTAGAGGGCTTGCTGAGTGTGTAAATATAATCGACTT
TTGTTTGTGTTACATGACTTCTGTGACTTCACTGAAAATCTGCACAATTCAGTTTCAGCTCTGGATTACTTCAGT
TGACCTTTGTGAAGGTTTTTATCTGTGTAGAATGGGTGTTTGACTTGTTTTAGCCTATTACGTTTTTATTTTCTT
TCACTCTGTATTTAAAGTAAAACTTACTAAAAGAAAAGAGGTTTGTGTTTACATTAAATGGTTTTGGATTGGCTT
TTTTTAGTGAGGCTTTCTGAACATTGAGATATCCTGAACCTTAGAGCTCTTCAATCCTAAGATTTTCATGAAAAGC
CTCTCACTTGAACCCAAACCAGAGTACTCTTACTGCCCTTTTTCTAAATGTTTCAGGAAAAGCATCGTCAGTTCAG
TCTTTTTCAGAATGAGGGAGAAACATTTGCCTGCCTTGTAATAACAAGACTCAGCGCTTATTTTTTTAAACTGCAT
TTTAAAAATTGGATAGTATAATAACAATAAGGAGTAAGCCACCTTTTATAGGCACCCCTGTAGTTTTATAGTTCTT
AATCCAAACATTTTATATTTCTTCTTTTGGAAAAACCTACATGCTACAAGCCACCATATGCACAGACTATACA
GTGAGTTGAGTTGCCTCTCCACAGTCTTTGAGGCGAATTACAAAAGTCCAGCCATTATCATCTTCCTGAGTTAT
TATTTTGAAATGATTTTTTTGTACATTTTGGCTGCAGTATTGGTGGTAGAATATACTATAATATGGATCATCTCT
ACTTCTGTATTTATTTATTTATTACTAGACCTCAACCACAGTCTTCTTTTTCCCTTCCACTGTCTTCTTTTCC
CCTTCCACCTCTCTTTGCCTGTAAGATGTACTGTATGTAGTCATGCACCTTGTATTAATATATTAGAAATCTACA
GATCTGTTTTGTACTTTTTATACTGTTGGATACTTATAATCAAACCTTTTACTAGGGTATTGAATAAATCTAGTC
TTATTAGAAAATAAAAAATAAAAAATAAAAAATAAAAAA

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FIGURE 4242

GGCTGAGGCAGTGGCTCCTTGACACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC
CCGAGTCCGTCAGCGCCAGAGGACCTCAGCAGCCATGTCGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTCA
GACCCAGCAGCTGCACGCAGCCATGGCTGACACATTCTGGAGCACATGTGCCGCTGGACATTGATTCACCACC
CATCACAGCCCCGGAACACTGGCATCATCTGTACCATTGGCCCAGCTTCCCCGATCAGTGGAGACGTTGAAGGAGAT
GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACCTCTCTCATGGAACATCATGAGTACCATGCGGAGACCATCAA
GAATGTGCGCACAGCCACGGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCGTTGCTGTGGCTCTAGACAC
TAAAGGACCTGAGATCCGAACCTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC
TCTCAAAATCACGCTGGATAACGCCTACATGGAAGGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT
CTGCAAGGTGGTGGAAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG
TGCCGACTTCTCTGGTGACGGAGGTGGAAAATGGTGGCTCCTTGCGCAGCAAGAAGGGTGTGAACCTTCTGGGGC
TGCTGTGGACTTGCTGTGTGTGCGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT
GGTGTTCGTCTATTCTCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCTGGGAGAGAAGGGAAAGAA
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCCCTGCAGAGAAGGTCTTCTTGCTCAGAAGATGATGAT
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG
CCCCACTCGGGCTGAAGGCAGTGATGTGGCAATGCAGTCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGA
AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCGTGAGGCAGAGGCTGCCAT
CTACCACTTGCAATTATTTAGGAACCTCCGCCGCTGGCGCCCATTACCAGCGACCCACAGAAGCCACCGCCGT
GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCTCACCAGTCTGGCAGGTCTGCTCA
CCAGGTGGCCAGATACCGCCACAGTCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCCA
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG
GGTGAACCTTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG
ATGGCGCCCTGGCTCCGGCTTACCAACACCATGCGTGTGTTCTGTGCGGTGATGGACCCAGAGCCCCCTCCT
CCAGCCCCCTGTCCACCCCCCTTCCCCAGCCCATCCATTAGGCCAGCAACGCTTGTAGAACTCACTCTGGGCTGT
AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTGCAGCCT
GCTCTAGTGGGACAGCCAGAGCCTGGCTGCCCCATCATGTGGCCCCACCCAATCAAGGGAAGAAGGAGGAATGC
TGGACTGGAGGCCCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCCTTTCTGTGTGTACTCTGTCCAGTTCCT
TTAGAAAAAATGGATGCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC
TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTCTAGCTCTCTAGGC
CTCTCCAGTTTGCACCTGTCCCCACCCTCCACTCAGCTGTCTGCAGCAAACACTCCACCCTCCACCTTCCATTT
TCCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCGC

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FIGURE 4243

MSKPHSEAGTAFIQTTQLHAAMADTFLEHMCRLDIDSPPI TARNTGIICTIGPASRSVETLKEMIKSGMNVARLN
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKSGTAEVELKKGATLKITLDNAYME
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPVSEKD
IQDLKFGVEQDQDVMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE
IPAEEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV
RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAP I
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM
RVVPVP

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FIGURE 4244

CCTCCGAGAGGGGAGACCAGCGGGCCATGACAAGCTCCAGGCTTTGGTTTTCGCTGCTGCTGGCGGCAGCGTTTCG
CAGGACGGGCGACGGCCCTCTGGCCCTGGCCTCAGAACTTCCAAACCTCCGACCAGCGCTACGTCCTTTACCCGA
ACAACCTTTCAATTCCAGTACGATGTCAGCTCGGCCGCGCAGCCCCGGCTGCTCAGTCCTCGACGAGGCCTTCCAGC
GCTATCGTGACCTGCTTTTCGGTTCCGGGTCTTGCCCCGTCCTTACCTCACAGGGAAACGGCATACTGGAGA
AGAATGTGTGGTTGTCTCTGTAGTCACACCTGGATGTAACCAGCTTCCTACTTTGGAGTCAGTGGAGAATTATA
CCCTGACCATAAATGATGACCACTGTTTACTCCTCTCTGAGACTGTCTGGGGAGCTCTCCGAGGTCTGGAGACTT
TTAGCCAGCTTGTTTTGGAATCTGCTGAGGGCACATTCTTTATCAACAAGACTGAGATTGAGGACTTTCCCCGCT
TTCTCACCGGGGCTTGCTGTTGGATACATCTCGCCATTACCTGCCACTCTCTAGCATCCTGGACACTCTGGATG
TCATGGCGTACAATAAATTGAACGTGTTCCACTGGCATCTGGTAGATGATCCTTCTTCCATATGAGAGCTTCA
CTTTTCCAGAGCTCATGAGAAAGGGTCTTACAACCTGTCAACCCACATCTACACAGCACAGGATGTGAAGGAGG
TCATTGAATACGCACGGCTCCGGGGTATCCGTGTGCTTGACAGTTTGACACTCCTGGCCACACTTTGTCTGGG
GACCAGGTATCCCTGGATTACTGACTCCTTGCTACTCTGGGTCTGAGCCCTCTGGCACCTTTGGACCACTGAATC
CCAGTCTCAATAATACCTATGAGTTTATGAGCACATTCTTCTTAGAAGTCAGCTCTGTCTTCCAGATTTTATC
TTATCTTGGAGGAGATGAGGTTGATTTACCTGCTGGAAGTCCAACCCAGAGATCCAGGACTTTATGAGGAAGA
AAGGCTTCGGTGAGGACTTCAAGCAGCTGGAGTCTTCTACATCCAGACGCTGCTGGACATCGTCTCTTCTATG
GCAAGGGCTATGTGGTGTGGCAGGAGGTGTTTGATAATAAAGTAAAGATTGAGCCAGACACAATCATACAGGTGT
GGCGAGAGGATATTCCAGTGAACATATGAAGGAGCTGGAAGTGGTCACCAAGGCCGGCTTCCGGGCCCTTCTCT
CTGCCCCCTGGTACCTGAACCGTATATCCTATGGCCCTGACTGGAAGGATTTCTACATAGTGAACCCCTGGCAT
TTGAAGGTACCCCTGAGCAGAAGGCTCTGGTGATTGGTGGAGAGGCTTGATGTGGGGAGAATATGTGGACAACA
CAAACCTGGTCCCCAGGCTCTGGCCAGAGCAGGGGCTGTTGCCGAAAGGCTGTGGAGCAACAAGTTGACATCTG
ACCTGACATTTGCCTATGAACGTTTGTCAACTTCCGCTGTGAATTGCTGAGGCGAGGTGTCCAGGCCCAACCCC
TCAATGTAGGCTTCTGTGAGCAGGAGTTTGAACAGACCTGAGCCCCAGGCACCGAGGAGGTGCTGGCTGTAGGT
GAATGGTAGTGAGCCAGGCTTCCACTGCATCCTGGCCAGGGGACGGAGCCCTTGCCTTCGTGCCCCCTGCCTG
CGTGCCCCCTGTGCTTGGAGAGAAAGGGCCGGTGTGGCGCTCGCATTCAATAAAGAGTAATGTGGCATTTTCT
ATAATAAACATGGATTACCTGTGTTAAAAAAAAGTGTGAATGGCGTTAGGGTAAGGGCACAGCCAGGCTGGA
GTCAGTGTCTGCCCCCTGAGGTCTTTTAAGTTGAGGGCTGGGAATGAAACCTATAGCCTTTGTGCTGTTCTGCCTT
GCCTGTGAGCTATGTCACTCCCCCTCCCACTCCTGACCATATTCCAGACACCTGCCCTAATCCTCAGCCTGCTCAC
TTCATTTCTGCATTATATCTCCAAGGCGTTGGTATATGGAAGAAAGATGTAGGGGCTTGGAGGTGTTCTGGACAGT
GGGGAGGGCTCCAGACCCAACCTGGTCACAGAAGAGCCTCTCCCCATGCATACTCATCCACCTCCCTCCCTAG
AGCTATTCTCCTTTGGGTTTCTTGCTGCTTCAATTTTATACAACCATTATTTAAATATTATTAAACACATATTGT
TCTCT

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FIGURE 4245

CCCTGAGCAGAAGGCTCTGGTGATTGGTGGAGAGGCTTGTATGTGGGGAGAATATGTGGACAACACAAACCTGGT
CCCCAGGCTCTGGTAAGGGTTTTTCGGGGGGGAGGTGGAGGGTTGGGCCTGAGAGCAGGAGTTCTCCCTTAGAGAC
CCAATCCCATCTAGCCACCTCTGGACTAGTACCCTTCTTTCAGGCCTGAGAGAGAGCAGGCCGTGCAACGAGCCT
TCTGAAGATTTGTGTGCAATATTCACCTCTCCACATGACTTCCGTCTATATCCCTCCAGCTGCCCTTTGGTATGTG
GGATAGGGATTGTTAACCTTACTTCCCAGAGAGATAATGAGGCCTGGAGAACATAGGTGAGTTGCTCAAGACCCA
GCACAAGCATCCATGATTCCTGTAATAAGGCTTCCCTCTGCTGTTTTTCACTGCAGCCTTACCAAGTATGGTTGGG
TGTGCAAAGTTTACATTTTAAGGACCTCTGCTGCTGCCACTGTCATTGTGGTTAATGATGGCTTTAAGGTTTATT
CTTATTCCCATATCTTTGAGAGAGGAAGAGAGTGGGATTGCTACCCACATTTTAATGAAGGTGGAGCTGAGCCGT
AGAACTCTCTGGGAGCCATCCAACCTGGCTGTGGCTCATAACAAGGTATTGATCACTTCCTTTGGCCTGAGTGAG
TCCAGGGTGCCTAGACAAGAGGTAGCAGCCTGTGGATGTCCAGCACCTTTCAGGGAATACAGGGCCCAATCTGG
CACATGCCCCTTTTCTCCAGGCCAGAGCAGGGGCTGTTGCCGAAAGGCTGTGGAGCAACAAGTTGACATCTGA
CCTGACATTTGCCTATGAACGTTTGTACACTTCCGCTGTGAATTGCTGAGGTAAGCAAGCTGTGGGGCCTTCGC
AAGGCGGAGCAGGCCAGATCCAGGGCTGGGGAACCCCTTAGAGAGAGGAAGACAATAATTAACAATAGCTAACAC
TTACAGAGGCTTATAGTCAGCCCTCATCCACGGATTCAACCAACTGCGATAAAAAGTATTCAGGAAAAAAAAAAT
ACAACAAAAATGGTACAAATAAAAAATACTGTATAACAACCT

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FIGURE 4246

CCAGAAAGGGGCAGGCTGAGGCTGGGGGAGGGGCTCAAGGGAGCCAGCTGGGAGGGCCAGGCAGGCAGTGC GG
AGCTGGCCGTGGGCTGCCTACCCCTTTCATCTCTGCAACTCCTTCCTCCCTGGGCCTCCCTTCTGGAGAAGGGCCA
GAGAATGTCGTCCAGCCAGCAGGGAACCAGACCTCCCCGGGGCCACAGAGGACTACTCCTATGGCAGCTGGTA
CATCGATGAGCCCCAGGGGGGCGAGGAGCTCCAGCCAGAGGGGGAAGTGCCCTCCTGCCACACCAGCATACCACC
CGGCCTGTACCACGCCTGCCTGGCCTCGCTGTCAATCCTTGTGCTGCTGCTCCTGGCCATGCTGGTGAGGCGCCG
CCAGCTCTGGCCTGACTGTGTGCGTGGCAGGCCCGGCCTGCCAGCCCTGTGGATTTCTTGGCTGGGGACAGGCC
CCGGGCAGTGCCTGCTGCTGTTTTTCATGGTCCTCCTGAGCTCCCTGTGTTTGTGCTGCCCGACGAGGACGCATT
GCCCTTCCCTGACTCTCGCCTCAGCACCCAGCCAAGATGGGAAAAC TGAGGCTCCAAGAGGGGCCTGGAAGATACT
GGGACTGTTCTATTATGCTGCCCTCTACTACCCCTCTGGCTGCCTGTGCCACGGCTGGCCACACAGCTGCACACCT
GCTCGGCAGCACGCTGTCTGGGCCCCACCTTGGGGTCCAGGTCTGGCAGAGGGCAGAGTGTCCCCAGGTGCCCAA
GATCTACAAGTACTACTCCCTGTCTGGCCTCCCTGCCTCTCCTGCTGGGCCTCGGATTCTGAGCCTTTGGTACCC
TGTGCAGCTGGTGAGAAGCTTCAGCCGTAGGACAGGAGCAGGCTCCAAGGGGCTGCAGAGCAGCTACTCTGAGGA
ATATCTGAGGAACCTCCTTTGCAGGAAGAAGCTGGGAAGCAGCTACCACACCTCCAAGCATGGCTTCCTGTCTGT
GGCCCCGCTGTGCTTGAGACACTGCATCTACACTCCACAGCCAGGATTCCATCTCCCGCTGAAGCTGGTGCTTTC
AGCTACACTGACAGGGACGGCCATTTACCAGGTGGCCCTGTGCTGCTGGTGGGCGTGGTACCCACTATCCAGAA
GGTGAGGGCAGGGGTCAACACGGATGTCTCTACCTGCTGGCCAGCTTTGGAATCGTGCTCTCCGAGGACAAGCA
GGAGGTGGTGGAGCTGGTGAAGCACCATCTGTGGGCTCTGGAAGTGTGCTACATCTCAGCCTTGGTCTTGTCTGT
CTTACTACCTTCCCTGGTCTGTATGCGCTCACTGGTGACACACAGGACCAACCTTCGAGCTCTGCACCGAGGAGC
TGCCCTGGACTTGAGTCCCTTGATCGGAGTCCCCATCCCTCCCGCCAAGCCATATTCTGTTGGATGAGCTTCAG
TGCCTACCAGACAGCCTTTATCTGCCTTGGGCTCCTGGTGCAGCAGATCATCTTCTTCCCTGGGAACCACGGCCCT
GGCCTTCCCTGGTGTCTATGCCTGTGCTCCATGGCAGGAACCTCCTGTCTTCCGTTCCCTGGAGTCTCTGTGGCC
CTTCTGGCTGACTTTGGCCCTGGCTGTGATCCTGCAGAACATGGCAGCCCATTTGGGTCTTCCCTGGAGACTCATGA
TGGACACCCACAGCTGACCAACCGGCGAGTGCTCTATGCAGCCACCTTTCTTCTTCCCCCTCAATGTGCTGGT
GGGTGCCATGGTGGCCACCTGGCGAGTGCTCCTCTCTGCCCTCTACAACGCCATCCACCTTGGCCAGATGGACCT
CAGCCTGCTGCCACCGAGAGCCGCCACTCTCGACCCCGGCTACTACACGTACCGAACTTCTTGAAGATTGAAGT
CAGCCAGTCGCATCCAGCCATGACAGCCTTCTGTCTCCCTGCTCCTGCAAGCGCAGAGCCTCCTACCCAGGACCAT
GGCAGCCCCCAGGACAGCCTCAGACCAGGGGAGGAAGACGAAGGGATGCAGCTGCTACAGACAAAGGACTCCAT
GGCCAAGGGAGCTAGGCCCGGGGCCAGCCGCGGCAGGGCTCGCTGGGGTCTGGCCTACACGCTGCTGCACAACCC
AACCCTGCAGGTCTTCCGCAAGACGGCCCTGTTGGGTGCCAATGGTGCCAGCCCTGAGGGCAGGGAAGGTCAAC
CCACCTGCCCATCTGTGCTGAGGCATGTTCTGCCTACCATCCTCCTCCCTCCCGGCTCTCCTCCCAGCATCAC
ACCAGCCATGCAGCCAGCAGGTCTCCGGATCACTGTGGTTGGGTGGAGGTCTGTCTGCACTGGGAGCCTCAGGA
GGGCTCTGCTCCACCCACTTGGCTATGGGAGAGCCAGCAGGGGTCTGGAGAAAAAACTGGTGGGTTAGGGCCT
TGGTCCAGGAGCCAGTTGAGCCAGGGCAGCCACATCCAGGCGTCTCCCTACCCTGGCTCTGCCATCAGCCTTGAA
GGGCCTCGATGAAGCCTTCTCTGGAACCACTCCAGCCAGCTCCACCTCAGCCTTGGCCTTCACGCTGTGGAAGC
AGCCAAGGCACTTCTCACCCCTCAGCGCCACGGACCTCTCTGGGGAGTGGCCGGAAGCTCCCGGGCCTCTGG
CCTGCAGGGCAGCCCAAGTCATGACTCAGACCAGGTCCACACTGAGCTGCCACACTCGAGAGCCAGATATTTT
TGTAAGTTTTTATGCCTTTGGCTATTATGAAAGAGGTTAGTGTGTTCCCTGCAATAAACTTGTTCCTGAGAAAAA
AAA

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FIGURE 4247

MSSQPAGNQTSFGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLLAMLVRRRQ
LWPDVCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLT LASAPSQDGKTEAPRGAWKILG
LFYYAALYYPLAACATAGHTAAHLLGSTLSWAHLGVQVWQRAECPQVPKIYKYISLLASLPLLLGLGFLSLWYPV
QLVRSFSRRTGAGSKGLQSSYSEEYLRNLLCRKKLGSSYHTSKHGFLSWARVCLRHCIYTPQPGFHLPLKLVLSA
TLTGTAIYQVALLLLVGVVPTIQKVRAGVTTDVSYLLASFGIVLSEDKQEVVELVKHHLWALEVCYISALVLSCL
LTFVLVLRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFSAYQTAFICLGLLVQQIIFFLGTTALA
FLVLMFVLHGRNLLLFRLSLESSWPFWLTALAVILQNMAAHWVFLETHDGHQPQLTNRRLVLYAATFLLFPLNVLVG
AMVATWRVLLSALYNAIHLGQMDLSLLPPRAATLDPGYYTYRNLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMA
APQDSLRLPGEEDEGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANGAQP

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FIGURE 4248

GGCACGAGGGGCGCTGGGGCCCTGGGCAGCGGGGCTCGATGTGTGTGTCAGCCAAGTAGCTGGTCCCACTGGAGCG
GTGAGGTCGCCACCGGATAGTGTTCCTGCCCCATTACTAGCGATCTGTGACCTTGGGCCAGTGATTTTACTGAGT
CTTGCTTCCCTCATCTTTAAATGTGGCTAATGCCTGCCTTAGGGAACCGTTGTGAGGATTAAGTGAGACATGGT
ATATAAAACGACCTCCTTCTGGCATAAACTTGAGGTGGAAGATACCTTGAGGATGCTTGAAGGTCTGCTAGGCAG
CTTCACAGCCTTTTCTTCTCTCTATCAGAGGTCTCTTTGGAAGCAATAATGATGACTATAACAAGAACTT
ATCTTGCTTTGCAAGATTCTTCCGCCGTGAGAGTTTCTGATTTATTTTCTGGGGTTCCATGTATGCCAGGGAGAA
AGAGAGAGCGCGAAAGAGAGAGGATGCTCTCTCAGACTGGCACCTGGCGGTGAAGCTGGCTGACCAGCCACTTA
CTCCAAAGTCTATTCTTCGGTTGCCAGAGACAGAACTGGGAGAATACTCGCTAGGGGGCTATAGTATTTCAATTC
TGAAGCAGCTTATTGCTGGCAAACCTCCAGGAGTCTGTTCCAGACCCTGAGCTGATTGATCTGATCTACTGTGGTC
GGAAGCTAAAAGATGACCAGACACTTGACTTCTATGGCATTCAACCTGGGTCCACTGTCCATGTTCTGCGAAAGT
CCTGGCCTGAACCTGATCAGAAACCGGAACCTGTGGACAAAGTGGCTGCCATGAGAGAGTTCCGGGTGTTGCACA
CTGCCCTGCACAGCAGCTCCTCTTACAGGGAGGCGGTCTTTAAGATGCTCAGCAATAAGGAGTCTCTGGATCAGA
TCATTGTGGCCACCCAGGCCTCAGCAGTGACCCTATTGCTCTTGGGGTTCTCCAGGACAAGGACCTCTTCTCTG
TCTTCGCTGATCCCAATATGCTTGATACGTTGGTGCCTGCTCACCCAGCCCTCGTCAATGCCATTGTCTGGTTC
TGCACTCCGTAGCAGGCAGTGCCCCAATGCCTGGGACTGACTCCTCTTCCCGGAGCATGCCCTCCAGCTCATACC
GGGATATGCCAGGTGGCTTCTGTTTGAAGGGCTCTCAGATGATGAGGATGACTTTCACCCAAACACCAGGTCCA
CACCTCTAGCAGTACTCCAGCTCCCGCCCAGCCTCCCTGGGGTACAGTGGAGCTGCTGGGCCCCGGCCCCATCA
CCCAGAGTGAGCTGGCCACCGCCTTGGCCCTGGCCAGCACTCCGGAGAGCAGCTCTCACACACCGACTCCTGGCA
CCCAGGGTCATTCTCAGGGACCTCACCAATGTCTCTGGTGTCCAGTCAGGGACGCCATCACCAATGATCTCT
TCAGCCAAGCCCTACAGCATGCCCTTCAAGCCTCTGGGCAGCCCAGCCTTCAGAGCCAGTGGCAGCCCCAGCTGC
AGCAGCTACGTGACATGGGCATCCAGGACGATGAGCTGAGCCTGCGGGCCCTGCAGGCCACCGGTGGGGACATCC
AAGCAGCCCTGGAGCTCATCTTTGCTGGAGGAGCCCCATGAAGTCCCTGCTTCCCCTGAACCCCCAGCAAGTTGC
AGAGGCTACTGCCCTTGGGAGGCACTCATGAAGGTGCCTCCATCTCTCCCTTCCCCAATATACCTGATGGTCAAC
TCTCAA

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FIGURE 4249

MSLSDWHLAVKLADQPLTPKSILRLPETELGEYSLGGYSISFLKQLIAGKLQESVPDPELIDLIYCGRKLKDDQT
LDFYGIQPGSTVHVLKSWPEPDQKPEPVDKVAAMREFRVLHTALHSSSSYREAVFKMLSNKESLDQIIIVATPGL
SSDPIALGVLQDKDLFSVFADPNMLDTLVPAPALVNAIVLVLHVSAGSAPMPGTDSSSRSMPSSTYRDMPPGGFL
FEGLSDDDDFHPNTRSTPSSSTPSSRPASLGYSAGAGRPITQSELATALALASTPESSHTPTPGTQGHSSGT
SPMSSGVQSGTPTNDLFSQALQHALQASGQPSLQSQWQPLQQLRDMGIQDDELSLRALQATGGDIQAALILIF
AGGAP

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FIGURE 4250

GGCGGGACGCGCACGCTCACAGTGAGGTCTCAAAAGATCCCCACCTCAGTTTTCTCATCTGGAAAGTGGGGCCTC
GTAATCCTGTCCGACCCGGCGCGGGACAGTAGGTGTGAGGGATTTTGGTGACCCACGCTCGAGGCCTCTGCAAA
AGGGGGCTGTCCAGTGGCCAGAGACGCAGCCGGCGGGGCTTTTGTCTAGCGGGGAGTCTTAAGTGAAGGCCA
CGCAGGCCGGCAGGAAGCCGCTCCACAGGAGGGGGCTCAAGGAGAGGGGATCTCCTCCCTCCAGACTCCGGCCCC
GCCAGAGTAGCTCTAGGGTATCTTCCCAGAACTGCCCCGCACGCACTGGCGAGCTGGGAGCGCCACCACGGCTT
TCAAAAAACCGCACACACCAAGATAATAATGTGTGCTTCGCTCGTTTCGCGCAAGCGGAGTCGCGTCCGCCTTC
CCGAGCTCCGGCACACAGACCTCAGGCCGCTCTCGCGCTCTCCGGGGCCCCGAGAACAATGCCCGTCCTCTCCGC
GCGCAGGAGGGAGTTGGCGGACCACGCGGGGTGCGGGCGACGGAGCGGGCCCAGCCCCACGGCCAGGTGCGGGGCC
CCACCTCTCGGCTCTGAGAGCCCAGCCGGCCCCGGGCCGCGCACCTGTGAGGTGCGGGGACCTACGTGCGCCGCGA
CACGGCGGGAGGCGGGCCGGGCCAGGCTCGTCCCCTCGGCCCTCCCGGAAGTCTCTAGGCCGCGGGCGCCCG
CCGGAGCGGAGAGGGCTGGTGCCCCGGAGCCTTCGAGTCGGGGGCTAGAGCGGCCAGGCCTCCGAGCCGGGTGGA
GCCGAGGCTGGCGACGGCTGCGTCACGCGAGGGGGCGGGGTGCCACGGGCGGAGGTGCGAGCCGGAAGCGGAAG
AGGCGCTCGGAGCGGGGAGTGGGGCCTAGCTGCAGCCGGAGCCTGGGAGACGCCATGACCGCTGCCCTACCAGA
GGAGGTACCGGGAGCGCCGTGACAGCGATACATACCGGTGTGAAGAGCGGAGCCCATCCTTTGGAGAGGACTACT
ATGGACCTTCACGTTCTCGTCATCGTCGGCGATCGCGGGAGAGGGGGCCATACCGGACCCGCAAGCATGCCCACC
ACTGCCACAAACGCCGCACCAGGTCTTGTAGCAGCGCCTCCTCGAGAAGCCAACAGAGCAGTAAGCGCAGCAGCC
GGAGTGTGGAAGATGACAAGGAGGGTCACCTGGTGTGCCGATCGGCGATTGGCTCCAAGAGCGATATGAGATTG
TGGGGAACCTGGGTGAAGGCACCTTTGGCAAGGTGGTGGAGTGCTGGACCATGCCAG

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FIGURE 4251

ATGTATAATATATCTAACTGTGGGTCACAGCCCCCTCCCACGACCGTCCACAAACCAGTAGCCTCCCTTCGCTCC
CACCTCCGCGCCGACGGGCCTGGAGCTCCTCCGCACACCACACCAAGCCGACCACTCAACACCAGAGGACCCACA
GAAGAATTCTCTCCACGCCCACCCCCACAGCATCGGCCTTCACCACCGCCGCCGCTGCCGGAAGCGCCCCACGT
CTCCACGCCACCACCGTGAGTGCTCAGTGTGGGCCCCCTTCCTGTTATTGTGAACGTTAGCCAAGATACGGCTT
GGTGATGAGAAGTGCAACATCTCTTGTAACCCAGTGCACCAGTCCAGGGGTGTGGAGAG

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FIGURE 4252

ATGGCGGCTGCGCCGGCCTTGAAGCACTGGCGCACCCACGCTGGAGCGGGTGGAGAAGTTCTGTGTCGCCGCTCTAC
TTTACCGACTGTAACCTCCGCGGCAGGCTTTTTGGGGCCAGCTGCCCTGTGGCTGTGCTCTCCAGCTTCTTGACG
CCGGAGAGACTTCCCTACCAGGAGGCAGTCCAGCGGGACTTCCGCCCCGCGCAGGTCGGCGACAGCTTCGGACCC
ACATGGTGGACCTGCTGGTTCCGGGTGGAGCTGACCATCCAGAGGCATGGGTGGGCCAGGAAGTTCACCTTTGC
TGGGAAAGTGATGGAGAAGGTCTGGTGTGGCGTGATGGAGAACCTGTCCAGGGTTTAACCAAAGAGGGTGAGAAG
ACCAGCTATGCTCTGACTGACAGGCTGGGGGAAAGAGACCCCCGAAGCCTCACTCTCTATGTGGAAGTAGCCTGC
AATGGGCTCCTGGGGGCCGGGAAGGGAAGCATGATTGCAGCCCCGTGACCCTGAGAAGATGTTCCAGCTGAGCCGG
GCTGAGCTAGCTGTGTTCCACCGGGATGTCCACATGCTCCTGGTGGATCTGGAGCTGCTGCTGGGCATAGCCAAG
GGCCTCGGGAAGGACAACCAGCGCAGCTTCCAGGCCCTGTACACAGCCAATCAGATGGTGAACGTGTGTGACCCCT
GCCCAGCCCCGAGACCTTCCAGTGGCCAGGCCCTGGCCTCCAGGTTCTTTGGCCAACATGGGGGTGAAAGCCAA
CACACCATTTCATGCCACAGGGCACTGCCACATTGATACAGCCTGGCTTTGGCCCTTCAAAGAGACTGTGAGGAAA
TGTGCCCGGAGCTGGGTGACCGCCCTGCAGCTCATGGAGCGGAACCCCTGAGTTTCATCTTTGCCTGCTCCCAGGCG
CAGCAGCTGGAATGGGTGAAGAGCCGCTACCCCTGGCCTGTACTCCCGCATCCAGGAGTTTGCCTGCCGTGGGCAG
TTTGTGCCCTGTGGGGGCGACCTGGGTGGAGATGGATGGGAACCTGCCAGTGGAGAGGCCATGGTGAGGCAGTTT
TTGCAGGGCCAGAACTTCTTTCTGCAGGAGTTTGGGAAGATGTGCTCTGAGTTCTGGCTGCCGGACACCTTTGGC
TACTCAGCACAGCTCCCCAGATCATGCACGGCTGTGGCATCAGGCGCTTTCTCAGCCAGAAATTGAGCTGGAAT
TTGGTGAACCTCCTTCCACACCATACATTTTCTGGGAGGGCCTGGATGGCTCCCGTGTACTGGTCCACTTCCCA
CCTGGCGACTCCTATGGGATGCAGGGCAGCGTGGAGGAGGTGCTGAAGACCGTGGCCAACAACCGGGACAAGGGG
CGGGCCAACCACAGTGCCTTCTTGGCTTTGGGGATGGGGTGGTGGCCCCACCAGACCATGCTGGACCGC
CTGAAGCGCCTGAGCAATACGGATGGGCTGCCAGGGTGCAGCTATCTTCTCCAAGACAGCTCTTCTCAGCACTG
GAGAGTGA CTGAGAGCAGCTGTGCACGTGGGTGGGGAGCTCTTCTTGGAGCTGCACAATGGCACATACACCACC
CATGCCCAGATCAAGAAGGGGAACCGGGAATGTGAGCGGATCCTGCACGACGTGGAGCTGCTCAGTAGCCTGGCC
CTGGCCCCGAGTGGCCAGTTCTTATACCCAGCAGCCAGCTGCAGCACCTCTGGAGGCTCCTTCTTCTGAACCAG
TTCCATGATGTGGTGACTGGAAGCTGCATCCAGATGGTGGCAGAGGAAGCCATGTGCCATTATGAAGACATCCGT
TCCCATGGCAATACACTGCTCAGCGCTGCAGCCGAGCCCTGTGTGCTGGGGAGCCAGGTCTGAGGGCCTCCTC
ATCGTCAACACACTGCCCTGGAAGCGGATCGAAGTGATGGCCCTGCCCAAACCGGGCGGGGCCACAGCCTAGCC
CTGGTGACAGTGCCAGCATGGGCTATGCTCCTGTTCTCCCCCACCTCACTGCAGCCCCCTGCTGCCCCAGCAG
CCTGTGTTCTGATGCAAGAGACTGATGGCTCCGTGACTCTGGACAATGGCATCATCCGAGTGAAGCTGGACCCA
ACTGGTTCGCTGACGTCTTGGTCTTGGTGGCCTCTGGCAGGGAGGCCATTGCTGAGGGCGCCGTGGGGAACCAG
TTTGTGCTATTTGATGATGTCCCCTGTACTGGGATGCATGGGACGTATGGACTACCACCTGGAGACACGGAAG
CCTGTGCTGGGCCAGGCAGGGACCCTGGCAGTGGGCACCGAGGGCGGCCCTGCGGGGCAGCGCCTGGTTCTTGCTA
CAGATCAGCCCCAACAGTGGGCTTAGCCAGGAGGTTGTGCTGGATGTTGGCTGCCCTATGTCCGCTTCCACACC
GAGGTACACTGGCATGAGGCCCAAGTTCTTGAAGGTGGAGTTCCCTGCTCGCGTGGGAGTTCCCAGGCCACC
TATGAGATCCAGTTTGGGCACCTGCAGCGACCTACCCACTACAATACCTCTTGGGACTGGGCTCGATTTGAGGTG
TGGGCCCATCGCTGGATGGATCTGTGAGAACACGGCTTTGGGCTGGCCCTGCTCAACGACTGCAAGTATGGCGCG
TCAGTGCGAGGCAGCATCTCAGCCTCTCGCTCTTGGCGGGCGCCTAAAGCCCCGGACGCTACTGCTGACACGGGG
CGCCACGAGTTACCTATGCACTGATGCCGCACAAGGGCTCTTTCCAGGATGCTGGCGTTATCCAAGCTGCCTAC
AGCCTAAACTTCCCCCTGTTGGCTCTGCCAGCCCCAGCCAGCGCCCCGCCACCTCCTGGAGTGCGTTTTTCCGTG
TCTTCAACCGCGGTCGTATTGGAGACCGTCAAGCAGGCGGAGAGCAGCCCCCAGCGCCGCTCGCTGGTCTCTGAGG
CTGTATGAGGGCCACGGCAGCCACGTGGACTGCTGGCTGCACTTGTGCTGCGGTTTCCAGGAGGCCATCCTCTGC
GATCTCTTGGAGCGACCAAGACCTGCTGGCCACTTGACCTTTCGGGACAACCGCCTGAAGCTCACCTTTTCTCCC
TTCCAAGTGCTGTCCCTGTGCTCGTTCAGCCTCCGCCACACTGAGTCCCTGGGGCTGGGGTTTTGTTTGTA
GAAGGCTCTGGGGACTCCTAATTTCTGCTTCCCCAGCCTAAAGCAGGGATCAGTCTTTTCTGTGGAATAAATCC
TTGGATCGGG

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FIGURE 4253

MGVVAPPRPMLDRLKRLSNTDGLPRVQLSSPRQLFSALES DSEQ LCTWVGELFLELHNGTYTTHAQIKKGNRECE
RILHDVELLSSLALARSAQFLYPAAQLQHLWRLLLLNQFHDVVTGSCIQMVAAEEAMCHYEDIRSHGNTLLSAAAA
ALCAGEPGPEGLLIVNTLPWKRIEVMALPKPGGAHSLALVTVP SMGYAPVPPPTS LQPLLPQQPVFVVQETDGSV
TLDNGIIRVKLDPTGRLTSLVLVASGREAIAEGAVGNQFVLFDDVPLYWDAWDVMDYHLETRKPVLGQAGTLAVG
TEGGLRGS AWFL LQISPNSRLSQEVVLDVGC PYVRFHTEVHWHEAHKFLKVEFPARVRSSQATYEIQFGHLQRPT
HYNTSWDWARFEVWAHRWMDLSEHGFG LALLNDCKYGASVRGSILSLSLLRAPKAPDATADTGRHEFTYALMPHK
GSFQDAGVIQAAYS LNFPLLALPAPSPAPATSWSAFSVSSPAVVLETVKQAESSPQRRSLVLRLYEAHGSHVDCW
LHLSLPVQEAILCDLLERPDPAGHLTLRDNRLKLTFS PFQVLSLLLVLQPPPH

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FIGURE 4254

GTAAC TTGGCTCCGGGGGCTCCGCTCGCCTGCCCCACGCCGCCGCCACCCAGGACCGCGCCGCCGGCCTCTGC
CGCGAACAAACCCCTTCTGACGGCCCTCGCTGTGCAGGCCAGGATGCCTCTCCCCCATCCGCCCCCGCTGCGGAAA
GTTAAGTTTGAAGAGGGGGGAAGAGGGGAACATGGACATGAAGAGGAGGATCCACCTGGAGCTGAGGAAC TGGAC
CCCGTCAGCTGTTTCGAGAACTTGTCTTGGACAATTGCAAATCAAATGATGGAAAAATTGAGGGCTTAACAGCTGA
ATTTGTGAACCTTAGAGTTCCTTAGTTTAATAAATGTAGGCTTGATCTCAGTTTCAAATCTTCCCAAGCTGCCTAA
ATTGAAAAAGCTTGAACCTCAGTGAAAATAGAATCTTTGGAGGTCTGGACATGTTAGCTGAAAAGCTTCCAAATCT
CACACGTCTAAACTTAAGTGGAATAAACTGAAAGATATCAGCACCTTGGAACCTTTGAAAAAGTTAGAATGTCT
GAAAAGCCTGGACCTCTTTAACTGTGAGGTTACTAACATGAATGACTACTGAGAGTGTCTTCAAGCTCCTGCCCC
AGCTTACCTACATGGATGGCTATGACCAAGAGGACCAGGAGGAACCTGACTCAGATGCTGAGGTGGATGGTGTGG
ATGAAGAGTAGGAGGGCGAAGAAGAAAGACGAAGAAGACGAGGAGGATGAAGATGGTGAAGAAGAGGAGTTTGATG
AAGAAGATGATTAAGACCCCAGATGACCTGCAGAAACAGAAGCTGTTTAGTATCGGTTGGACTGCTCATGGATTTG
GTAGCTGTTAAAAAAAAAAAAAAAAAAGGTAGCTGATACAAACCCAGGACACCCACCCACCCAAAGAGCCAAAGA
ATAGTTCCTGTGACATTCCGTCTTCTCCATGTAGTCCCTCTTGGTAATCTACCAATCTACCATCGAGCTTAGGG
ACTTCACCCCAACAAAATTGTAAGTGTGTAGGTTTTTGTGTGAGACTCTTGCTGTAGCGTAGATAGCTGTGAT
TGGTGAGTCAACCATCTGTGGCTACCAGTTACACTGGGACTGTAACAGCATTTTTTACTTTCTGTACAACAAAAAT
CTTTGTAAATAAAATCTTAACATT

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FIGURE 4255

MDMKRRIHLELRNWTPSAVRELVDNCKSNDGKIEGLTAEFVNLEFLSLINVGLISVSNLPKLPKLESEN
IFGGLDMLAEKLPNLTRLNLSGNKLKDISTLEPLKKLECLKSLDLFNCVETNMNDY

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FIGURE 4256

GAGCGGCGCCCGCTCGAGAGAAGTGGGGCCGAGATCGCGCCGTCCCAGCCCCGCCGCGCTCTGCGCTGCTCC
GGCGCCCTTACCCCTGCTGGCCCTTGCAAGGCGCGACCGGCGGCCATGCAGCCCCGGGGCTGAGGCCGCCCATG
GCAAAGCCGGCGGTCCCGGCGACGACGGCGCATGGAGAACTTCGTAAAGTGCGCTCCGAAGAGGCGCCAGCGGG
GTGCGGGGCGGAGGGAGGCGGCCCGGGCTCCGGCCCCCTTCGCAGACCTGGCGCCGGGCGCGGTGCACATGCGGGT
CAAGGAAGGCAGCAAGATCCGGAACCTGATGGCCTTCGCCACCGCCAGCATGGCGCAGCCAGCCACGCGCGCCAT
CGTCTTCAGCGGCTGCGGCCGGGCCACCACCAAAACCGTCACGTGCGCCGAGATCCTCAAGCGCCGCTGGCGGG
CCTGCACCAGGTACGCGGCTGCGCTACCGGAGCGTACGCGAGGTGTGGCAGAGCCTCCCGCCTGGGCCCCACGCA
GGGTGAGACGCCTGGCGAGCCGGCCGCTAGTCTCAGCGTACTTAAGAACGTGCCCGGCCCTCGCCATCCTACTTTC
CAAGGACGCGCTGGATCCGCGACAGCCCGGTACCAGCCCCGAATCCCCATCCTGGTCCCTCGTCCCCGCCAGC
CGCGCCAGCGTCCAAGAGGAGCCTAGGGGAACCCGCAGCTGGAGAAGGCTCCGCGAAGCGATCGCAACCCGAGCC
AGGGGTTGCGGACGAGGATCAGACGGCCTGAAACTCCGGACTGTGGGCCACCTAGTCCGGCAGGATCTTCGCCA
GCGCCTCCACCTTCAGATGTACCTCCAGCCTTTCACTCCTCGGTCTCCGGAGCCCACAACCTGGACACAGCTCC
TCAAGACAGGTAGCATGGACCTTAAGGCGACAAGAGAGGGGCCCCAGGAGTGGCAGGAGAGGATCCCCGACCACC
CTAGGGAAACTTCGTGCGATAATTGCTGCTTATGCCCCGTGTGCGTGAAGACACGGAACCTTCACCTTTTCTGGGA
CCTTCTTTGGGGGAGAATGGTGGACAGTGGGATTCTGGAACTTGTTTGGGACCCCCAAGGGTTAAAGCCACCCA
GCATTCACGAAGAGCACCTGAAGTATGGAAGCTGAGAAGAGTTATTGGAATCACCCCCACCGTTGACAGAGGAAG
GCAGGGGGGTGAGAATTAAGTGTGAGGGTAGGAGAGTCTGAGATGTGGGGGCCCTATTCCGCTCCCCGCCCTGG
GACAGTTTTCTTTCTAGTTTTCTTTCCCCTGCTTCAGAGGAGCATCTCTGAGGGTTCTAGCTCTTTTAACACCC
CTTTTCCCCCTGCTGGCCCAGAGGGAGACCCAGGACTGAACTCTCCAGGCCTCCTCCCCTGAGCCCTGCAGCTGG
CTGGAGTCTTGCTTCCAATAAAACAAGCACA

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FIGURE 4257A

GGCAGCTAGGAGGGTTGCTCCGGGCTTGGTGCTCACTGCGACTTCCC GCGCAGGGCCCCGGTCCGACTAGGACCCG
CGGCCCTGAGAGACGCTGGAGGATGCGGACGCGGAGGCCGCTGGGGTAGCGGCGGCGGGAGTCTTGCGCTCTGC
AGGT CAGAAGTTGAGTAGCAGGGGCC TAGGAGGGCTCGAAGCCTTACAGCGATGGCAGAGAAGCGACCCCTGAG
AACCCTGGGGCCTGTGATGTATGGCAAGCTGCCCGCTTAGAGACAGACTCCGGGCTCGAGCACAGCCTGCCCCA
CTCTGTTGGTAACCAGGATCCCTGCACCTACAAGGGGTCTACTTCTCCTGCCCCATGGCAGGTACTCCTAAGGC
CGAGTCTGAGCAGTTGGCGTCTGGACCCCATACCCACCTTGTACTCTACCGGTATGGCAGGACCCCCACTTCA
GGCAGACAACCTGCTGACCAACTGCCTGTTTCTACCGCTCGCCAGCAGAAGGCCCTGAGAAGATGCAGGACTCCAG
CCCTGTTGAGCTCCTGCCCTTCAGTCCCCAGGCTCACTCCTACCCAGGCCACCCTGGCAGCACCCAAACCTGT
CTACCGCAACCCCTCTGTGCTATGGGCTCTCAACTTGTCTGGGGGAAGGAGCAGTGAAGAGGCCACTGGATGTTGA
CTGGACTCTGGCGACTGGGCCCCCTGTTGCCCTCAGCTGACCCACCTGCTCTCTGGCCCCAGCTCCTAGCAAGGG
CCAGACTCTGGATGGCACCTTCTTGCGGGGGGTGCCAGCTGAGGGGTCCAGTAAAGACTCCTCAGGGAGCTTCTC
CCCATGCCAGCCCTTCTTGAGAAATATCAGACCATCCACAGCACGGGCTTCTTGCCCTCCAGGTACACAGGTCC
TTACCCTAGGAATCCAAGCAAGCAATGTCTGAGGGGCCCTCAAGTCTTGGACCCAGCTGGCCAGCCCCCTGGG
GCCACCCCTGTCAGGACACCGGGGCCACCCACTACCCACCACCCACCACCCACCACCCACCCCTTACAGGCCCT
GCCTTGCCCTCCAGCCTGTGCGCACCCAGAGAAGCAGGGCAGCTACAGCCCAGCACTCCCACTGCAGCCTCTGGG
GGGCCACAAGGGGACCGGTACCAGGCTGGTGGGCTGGGCAGCCCCTACCTGAGGCAGCAGGCAGCCAGGCACC
TTACATTCCCCCACTGGGGCTGGACGCTTACCCCTACCCCTCTGCCCTCTCCCAGCACCCCTCTCCAGGCCTCAA
GCTGGAGCCGCCTCTCACTCCACGGTGCCATTGGACTTTGCCCCCAGACACTGAGTTTTCTTATGCCCGGGA
TGACCTCTCTCTATGGAGCATCCCTGGGCTTGGAGGGACACCCTTCCCAGAAATGTGCGGGCTGTGCC
ACAGCCTGGTGCTTCCAGAGGGCATGCCAGCCTTTGCCAGCGAGCCAGCCCTGCTCAGAGCCTGTGAGGCCTGC
ACAGGAAGCCGAAGAGAAGACCTGGCTGCCAGCTGCAGGAAGAGAAGCTCCAGCCCCGGCTCAGTGAGCACTC
TGGGCCGCCCATCGTCATCCGAGACAGTCCAGTTCCCTGTACCCCCCAGCACTGCCCCCTGTGCCCGGAGTG
CCAGTCTCTTCCACAGAAGGAGGGCGCAAGGCCACCCAGCTCTCCACCAATGCCTGTCAATTGACAATGTCTTCAG
CCTGGCCCCCTACCGTGA CTATCTGGATGTGCCGGCACCCGAGGCCACA ACTGAGCCTGACTCTGCCACAGCTGA
GCCTGACTCAGCCCCAGCCACCAGTGAAGGT CAGGACAAAGGCTGCAGGGGGACCC TGCTGCCAGGAGGGCCC
CTCAGGGAGTAAACCCCTAAGGGGCTCACTTAAGGAGGAGGTAGCCCTGGATTGAGTGTGAGGAAGCCACAGC
AGAGGCCTCCCCTGTCAAGGCTTCCCGTTCTGTGGAGCATGCCAAGCCTACTGCAGCCATGGATGTGCCAGATGT
GGGCAACATGGTGT CAGATCTGCCAGGCCTGAAAAAGATAGACACAGAAGCACCAGGCTTGCTGGGGTGCCAGT
GACCACAGATGCCATGCCAAGGACCAACTTCCACAGCTCTGTGGCCTTCATGTTCCGAAAGTTCAAGATCCTCCG
TCCGGCACCTTTGCTGCAGCCGTGGTCCCGTCCACGCCACCTCAGCTCCTGCTCCCACACAGCCTGCACCCAC
CCCCACATCTGGGGCCATTGGACTGCGGATTCTCGCTCAACAGCCCTTGTCTGTGACCTGCTTCAGCCTGGCACT
GCCAGCCCTCCAGCCGTAGCTGTGGCTTCCCTGCCCCCTGCTCCAGCTCCATCCCCTGCTCCGGCTCGAGCTCA
GGCTCCAGCTTCAGCCCGGGATCCAGCTCCAGCTCCAGCTCCAGTTGCAGGCCCTGCTCCAGCATCTACTTCAGC
CCCAGGGGACTCCCTGGAGCAGCATTTTACAGGACTACATGCGTCCCTGTGTGATGCTATTTCTGGCTCCGTCGC
CCACTCTCCTCCAGAGAAGCTTCGCGAGTGGCTAGAGACGGCTGGGCCCTGGGGCCAGGCTGCGTGGCAGGACTG
CCAGGGTGTGCAGGGGCTGCTGGCCAAGCTGCTGTCTCAGCTGCAGCGCTTCGATCGCACCCACCGGTGCCCTT
CCCCATGTGGTGCGAGCTGGCGCCATCTTCGTGCCATTACCTGGTGAAGGAGCGGCTCTTCCCTCGGCTGCC
ACCCGCTTCTGTGGACCATGTGCTGCAGGAGCATCGTGTGGAGCTGCGGCCACCACGCTGTGCGGAGGAGCGGGC
ACTGCGGGAGCTCGCCCTGCCAGGCTGCACCTACGCATGCTGAAGTTACTGGCGCTGCGCCAGCTGCCGGACAT
TTACCCCGACCTTCTCGGCCTGCAGTGGCGCGACTGTGTACGCCCGCAGCTGGGTGACTTTGACACTGAGGCTGG
AGCTGTGTCTCTCCTCAGAGCCCACTGTGGCCAGAGGTGAGCCAGAGAGCCTAGCCCTGGCTCAGAAGTCAACGGC
CCCCAAGGT CAGGAAGCCAGGCAGGAAGCCACCAACCCCTGGCCCCGAGAAAGCAGAGGCAGCTGCTGGGGAAGA
GTCTGTGGTGCTTCCCCTACCCCTGCTACCAGTGCCAGCCACCTGGCCCCACACTGAAGGCCCGCTTCCGCGAG
TCTGCTGGAGACCGCCTGGCTCAATGGCCTGGCTCTGCCACCTGGGGCCACAAGTCTCTAAGACCAGACCAGCC
CTACCCCTGCCCACAGCTGTGGACAGCCAGAGCCATCACCTGTAGCACTGGTTGCCAGTGTGTGTGTATAGCA
GTCACTCTCCACCCCTTCCCTTCTGCTGCCAGCTGCCCGGGGCCACGAGTGGATGCTGGGGCTGTGGCTGCTC
CCCTGGAGGGGTTCATCTCTGACCCGTGTGGCCATT CAGGGTGGGCTGAAGAGCCCTGAGCTTTTAAACGTGAG
GGTCTTTATTGGATAGGACTACTCCCTATTTCTTGCCTAGAGAACACACATGGGCTTGGAGCCCGACAGACCTG

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FIGURE 4257B

GGCTTGAATCCCGGCTCGTGTTCTTGCTGCAGGACCTGGGCAAGAACTTCACCTCTGCTGAGCCCTCATTCCCC
ATGTGTAAAATGGGACAACGCAACCTACCTCACAGGGTTGTTGTGGGGATGCTGCCTGATACATACCCTGTCACC

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FIGURE 4258

MDVPDVGNMVSDLPGLKKIDTEAPGLPGVPVTTDAMPRTNFHSSVAFMFRKFKILRPAPLPAAVVPSTPTSAPAP
TQPAPTPTSGPIGLRILAQQPLSVTCFSLALPSPPAVAVASAPAPAPSPAPARAQAPASARDPAPAPAPVAGPA
PASTSAPGDSLEQHFTGLHASLCDALSGSAHSPPEKLREWLETAGPWGQAAWQDCQGVQGLLAKLLSQLQRFDR
THRCFFPHVVRAGAI FVPIHLVKERLFPRLPPASVDHVLQEHVELRPTTLSEERALRELALPGCTSRMLKLLAL
RQLPDIYPDLLGLQWRDCVRRQLGDFDTEAGAVSSSEPTVARGEPESLALAQKSPAPKVRKPGRKPPTPGPEKAE
AAAGEESCGASPTPATASPPGPTLKA FRSLLETAWLNGLALPTWGHKSSRPDQPSPCPQLLDSQSHHL

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FIGURE 4259

GTCTCCCGCGGGTCCGAGGGCGCTGGAACCCAGCGGCGGCGAAGCGGAGAGGAGCCCCGCGCTCTCCGCCCC
CACGGCTCCAGGTCTGGGGTCTGCGCTGGAGCCGCGCGGGGAGAGGCGTCTCTGCGACCGCCGCGCCGCTCCC
GACCGTCCGGGTCCGCGGCCAGCCCCGCCACCAGCCATGGGCTCTGGCCCCGCTCTCGCTGCCCTGGCGCTGTCTG
CCGCCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCCAGTGGCCAGGGCCTCAGAGGCTGAGCACCCTCTA
TTTGAGCGGCTGTTTGAAGATTACAATGAGATCATCCGGCCTGTAGCCAACTGTCTGACCCAGTCATCATCCAT
TTCGAGGTGTCCATGTCTCAGCTGGTGAAGGTGGATGAAGTAAACCAGATCATGGAGACCAACCTGTGGCTCAAG
CAAATCTGGAATGACTACAAGCTGAAGTGAACCCCTCTGACTATGGTGGGGCAGAGTTTCATGCGTGTCCCTGCA
CAGAAGATCTGGAAGCCAGACATTGTGCTGTATAACAATGCTGTTGGGGATTTCAGGTGGACGACAAGACCAAA
GCCTTACTCAAGTACACTGGGGAGGTGACTTGGATACCTCCGGCCATCTTTAAGAGCTCCTGTAAAAATCGACGTG
ACCTACTTCCCCTTTGATTACCAAACTGTACCATGAAGTTCGGTTTCTGGTCTACGATAAGGCGAAAAATCGAT
CTGGTCTGTATCGGCTCTTCCATGAACCTCAAGGACTATTGGGAGAGCGGCGAGTGGGCCATCATCAAGGCCCA
GGCTACAAACACGACATCAAGTACAACCTGCTGCGAGGAGATCTACCCCGACATCACATACTCGCTGTACATCCGG
CGCTGCCCCCTTGTCTACACCATCAACCTCATCATCCCCGCTGCTCATCTCCTTCTCACTGTGCTCGTCTTC
TACCTGCCCTCCGACTGCGGTGAGAAGGTGACCCCTGTGCATTTCGTCTCCTCTCCTTGACGGTGTTCCTCTG
GTGATCACTGAGACCATCCCTTCCACCTCGCTGGTCATCCCCCTGATTGGAGAGTACCTCCTGTTTACCATGATT
TTTGTAACCTTGTCCATCGTCATACCGTCTTCGTGCTCAACGTGCACTACAGAACCCCGACGACACACAATG
CCCTCATGGGTGAAGACTGTATTCTGAACCTGCTCCCCAGGGTCATGTTTCATGACCAGGCCAACAAAGCAACGAG
GGCAACGCTCAGAAGCCGAGGCCCTCTACGGTGCCGAGCTCTCAAATCTGAATTGCTTCAGCCGCGCAGAGTCC
AAAGGCTGCAAGGAGGGCTACCCCTGCCAGGACGGGATGTGTGGTTACTGCCACCACCGCAGGATAAAAAATCTCC
AATTTAGTGCTAACCTCACGAGAAGCTCTAGTTCTGAATCTGTTGATGCTGTGCTGTCCCTCTCTGCTTTGTCA
CCAGAAATCAAAGAAGCCATCCAAAGTGTCAAGTATATTGCTGAAAATATGAAAGCACAAATGAAGCCAAAGAG
ATTCAAGATGATTGGAAGTATGTGTCATGGTGATTGATCGTATTTTTCTGTGGGTTTTACCCTGGTGTGCATT
CTAGGGACAGCAGGATTGTTTCTGCAACCCCTGATGGCCAGGGAAGATGCATAAGCACTAAGCTGTGTGCCTGCC
TGGGAGACTTCCCTGTGTGTCAGGGCAGGAGGAGGTGCTTCTAGTAAGAACGTACTTCTGTTATCAAGCTACCA
GCTTTGTTTTTGGCATTTCGAGGTTTACTTATTTTCCACTTATCTTGAATCATGCAAAAAAAAAAATGTCAAGA
GTATTTATTACCGATAAATGAACATTTAACTAGCCTTTTTGGTATGGTAAAGAGATGTCAAAATGTGATTCTATG
TGATTAGTATGCTATGCTATGGAATATACATGTAAAAATGTTTCTTTTAGTTGTTGAAACAAAATGGATAGAA
AAATGCTGTTTCAAGAAATATGAAAAGTCATTCAAGTTATCACTACAGATCTCCAGTAATTTTTCTTATTTAGCCCA
TAATCTCTTTGAAGGTTTATACTAATTCAGCAATCCCCCATCGTTACCCATTTCTTACCATGCATTTCTCGTTCT
TTACTGGGTCTAAAGGGCTATGCCTCCATTTAGAGAGCTTCAACTACTTCTCTGCTACTTCTAAATTATACT
ATGAGAAATCATGCCTAGTTATTCATTGTTAATATACTGTCTTAGTACACCATAAACTGGGTGGATTATAAACA
ACAGAAACTTCTCAGTTTTGGAGGTTGGGAGGTCCAAGGTCAAGGCACCAGCAAATTTGGTGTCTGGTGAAGGTC
CTCTTCTCAAAGGGTGCTTCTAGCTGTGTCTCACATGACTGAAGGGACTAGCTATCTCTGTGGGGTCTATTT
TATAAGGGCACTAACCCCATTCATGAGAGCAGAGCCCCATGGCCTAATCACCTTTCCAAGGCCCCACCTTCTAT
CTAAGACAATCACGCTGGGAATAGGTTTCAACATATGAATTGGGGGAGGACACATTTGGACCACAGCATGAACCT
TTAGAACAGGGTTTCTCAGCCTTAGCACTACGGACATTTTGGGCTGGATAAAATATGTGTTGGTACAGAAATGGGGG
TATCTGTGCTATTGTAGGATCTTTAGCAGTACCCCTAGCCTCAACTCACTAGATGCCAATGACATACCTTGCTTCT
TCACCAGTTATGATAACCAAGAAATGTCTCCATTGTTAAATGTCCCCCTTAGGAGCAAAATTTGCCCTGGTTGAGAA
ACATTGCTTTAGACAAATTTGTTAAGAGTATCATGTACTACACTTCTGAAACTTAACGTGATCATCACCAGTACA
GATGATTACAGAGAGAGACTGTTGAATCTTGTCTCACTAGTTTTTCTGTGCAAAAAATAAAATGGACAGAATT
GCAAAAAAAAAAAAAAAAAA

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FIGURE 4260

MGSGPLSLPLALSPPRLLLLLLLLSLLPVARASEAEHRLFERLFEDYNEIIRPVANVSDPVIHFEVSMSQLVKVD
EVNQIMETNLWLKQIWNDYKLKWNPSDYGGAEFMRVPAQKIWKPDIVLYNNAVGDVFQVDDKTKALLKYTG EVTWI
PPAIFKSSCKIDVTYFPFDYQNCTMKFGSWSYDKAKIDLVLIGSSMNLKDYWESGEWAIKAPGYKHDIKYNCE
EIYPDITYSLYIRRLPLFY TINLIIPCLLISFLT VLVFYLP SDCGEKVTL C ISVLLSLTVFLLVITETIPSTSLV
IPLIGEYLLFTMIFVTL SIVITVFVLNVHYRTP THTMPSWVKTVFLNLLPRVMFMTRPTSNEGNAQKPRPLYGA
ELSNLNCFSRAESKGCKEGYPCQDGMCGYCHHRIKISNFSANLTRSSSESVD AVL SLSALSPEIKEAIQSVKY
IAENMKAQNEAKEIQDDWKYVAMVIDRIFLWVFTLVCILGTAGLFLQPLMAREDA

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FIGURE 4261

GCGCATGCGCGGGGGCCATATTAGCAGCGGTTATTCCGGTGAGCGGTGGTGGTTTATTCTTCCGCGGAGTTAAGGG
CTCCGTGGACATCTCAGGTCTTCAGGGTCTTCCATCTGGAACATATATAAAGTTCAGAAAAACATGTCTCGAAGATA
TGA CTCCAGGACCACTATATTTTCTCCAGAAGGTCGCTTATACCAAGTTGAATATGCCATGGAAGCTATTGGACA
TGCAGGCACCTGTTTGGGAATTTTAGCAAATGATGGTGTGTTTGCTTGCAGCAGAGAGACGCAACATCCACAAGCT
TCTTGATGAAGTCTTTTTTTCTGAAAAAATTTATAAACTCAATGAGGACATGGCTTGCAGTGTGGCAGGCATAAC
TTCTGATGCTAATGTTCTGACTAATGAAC TAAGGCTCATTGCTCAAAGGTATTTATTACAGTATCAGGAGCCAAT
ACCTTGTGAGCAGTTGGTTACAGCGCTGTGTGATATCAAACAAGCTTATACACAATTTGGAGGAAAACGTCCCTT
TGGTGTTCATTGCTGTACATTGGCTGGGATAAGCACTATGGCTTTCAGCTCTATCAGAGTGACCCTAGTGAAAA
TTACGGGGGATGGAAGGCCACATGCATTGGAATAATAGCGCTGCAGCTGTGTCAATGTTGAAACAAGACTATAA
AGAAGGAGAAATGACCTTGAAGTCAGCACTTGCTTTAGCTATCAAAGTACTAAATAAGACCATGGATGTTAGTAA
ACTCTCTGCTGAAAAAGTGGAAATTGCAACACTAACAAGAGAGAATGGAAAGACAGTAATCAGAGTTCTCAAACA
AAAAGAAGTGAGCAGTTGATCAAAAAACACGAGGAAGAAGAAGCCAAAGCTGAGCGTGAGAAGAAAGAAAAAGA
ACAGAAAGAAAAGGATAAAATAGAAATCAGAGATTTTATTACTCATTGTTGGGGCACCATTTCAGTGTAAAAGCAGTCC
TACTCTTCCACACTAGGAAGGCTTTACTTTTTTTAACTGGTGCAGTGGGAAAATAGGACATTACATACTGAATTG
GGTCCTTGTCAATTTCTGTCCAATTGAATACTTTATTGTAACGATGATGGTTACCCTTCATGGACGTCTTAATCTT
CCACACACATCCCCTTTTTTTTGAATAAAATTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4262

MSRRYDSRTTIFSPTEGRLYQVEYAMEAIGHAGTCLGILANDGVLLAAERRNIHKLLDEVFFSEKIYKLNEDMACS
VAGITSDANVLTNELRLIAQRYLLQYQEPICEQLVTALCDIKQAYTQFGGKRPFVSLLYIGWDKHYGFQLYQS
DPSGNYGGWKATCIGNNSAAAVSMLKQDYKEGEMTLKSALALAIKVLNKTMDVSKLSAEKVEIATLTRENGKTVI
RVLKQKEVEQLIKKHHEEEEAEREKKEKEQKEKDK

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FIGURE 4263

ATGGTTAACCCCACTGTGTTTTTTGACATCGCCGTCGATGGCGAGCCCTTGGGCCACGTCTCCTTCGAGCTGCTT
GCAGACAAGTTTCCAAAGACAGCAGAAAACTTTCATGCTCTGAGCACTGGAGAGAAAGGATTTGAATTATCAGAG
TTTATGTGTCAGGGTGGTGACTTCACATGCCATAATGGCACTGGTGGCAAGTCCATCTATGGGGAGAAATTTGAT
GATGAGAACTTCATCCTAAAGCATACAGTGGTGGATGGCAAGCATGTGGTCTTTGGCAAGGTGAAAGAAGGCATG
AATATTGTGGAGGCCACGGAGCGCTTTGAGTCCAGGAATGGCAAGACCAGGAAGAAGATCACCATTGCTGACTGT
GGACAACTCTAA

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FIGURE 4264

MVNPTVFFDIAVDGEPLGHVSFELLADKFPKTAENFHALSTGEKGFELSEFMCQGGDFTCHNGTGGKSIYGEKFD
DENFILKHTVVDGKHHVVFVKVKEGMNIVEATERFESRNGKTRKKITIADCGQL

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FIGURE 4265

AGTGCGCGCCGGCCGGGCAACCCTATGCTGGCGTAATCGGGTTCCCTCCGAGCCGCCGTAGGACTGGTTCCGGCGG
GCTGGTGAGGAATGGAGCCGGTAGGCTGCTGCGGCGAGTGCCGCGGCTCCTCCGTAGACCCGCGGAGCACCTTCG
TGTTGAGTAACCTGGCGGAGGTGGTGGAGCGTGTGCTCACCTTCCTGCCCCGCAAGGCGTTGCTGCGGGTGGCCT
GCGTGTGCCGCTTATGGAGGGAGTGTGTGCGCAGAGTATTGCGGACCCATCGGAGCGTAACCTGGATCTCCGCAG
GCCTGGCGGAGGCCGGCCACCTGGAGGGGCATTGCTTGGTTCGCGTGGTAGCAGAGGAGCTTGAGAATGTTTCGCA
TCTTACCACATACAGTTCTTTACATGGCTGATTAGAAAACCTTCATTAGTCTGGAAGAGTGTCTGGCCATAAGA
GAGCAAGGAAAAGAACTAGTATGGAAACAGCACTTGCCCTTGAGAAGCTATTCCCCAAACAATGCCAAGTCCTTG
GGATTGTGACCCCAGGAATTGTAGTGACTCCAATGGGATCAGGTAGCAATCGACCTCAGGAAATAGAAATTGGAG
AATCTGGTTTTGCTTTATTATTCCCTCAAATTGAAGGAATAAAAAATACAACCCCTTTCATTTTATTAAGGATCCAA
AGAATTTAACATTAGAAAGACATCAACTCACTGAAGTAGGTCTTTTAGATAACCCCTGAACTTCGTGTGGTCCCTG
TCTTTGGTTATAATTGCTGTAAAGGTGGGAGCCAGTAATTATCTGCAGCAAGTAGTCAGCACTTTCAGTGATATGA
ATATCATCTTGGCTGGAGGCCAGGTGGACAACCTGTCATCACTGACTTCTGAAAAGTATGTCTTGTGTGCTTCTG
ATTTCTGCTGTGAATGAAGGGAAATGGTCTCAGGTTTTGTCACTTTGGGGTTAACAATTTAAAAACGTGTTTAA
AGAATTATTAAGATAATAGTTTCATTCCATTTTGTAGTAGACATTGGCTAAGGGGCTTACTGAACATAATTCTGCT
TACGGTTGAATAATTACATTTTTATATATATTGTCCTTCAAGAACTTCCTTGAGTCACATTCTCCTTAAAATTTG
ACATTGCCCTGTTGATCTTTCCTTTGACAGATGTGGTACTCTGTGTGACCTCAATGTGTACCTCCTTTCTAGTTT
CCTCCTTTAAAGGAAACACATGGTTAGAGTGATCTTTATGGCAAACTTCTCAGAGCTTCTAATATGCCCGGTG
CTGTGGAAATCTGGAAGGAGAATAGCATTACCTGTGACAGTTCCCAAATCTGTTTGGTCACAAAACCTTTTTTCCA
CAGAATGTCTTGCAAGTCGTACTGGTTTTTGGAAATTCTGTATTAGATCTTTGAAAGGCTTTTTCAAGCTTAAA
AATTGTGGATCTTTTTTGTACTAAGGCTTTTGCTTTCAAAGATAAAAAATATTTGCTCTTC

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FIGURE 4266

MEPVGCCGECRGSSVDPRSTFVLSNLAEVVERVLTFLPAKALLRVACVCRLWRECVRRVLRTHRSVTWISAGLAE
AGHLEGHCLVRVVAEELENVRILPHTVLYMADSETFISLEECRGHKRARKRTSMETALALEKLFPKQCQVLGIVT
PGIVVTPMGSGSNRPQEIEIGESGFALLFPQIEGIKIQPFHFIDPKNLTLEERHQLTEVGLLDNPELRVVLVFGY
NCCKVGASNYLQQVVSTFSDMNIIILAGGQVDNLSSLTSEKYVLCASDFVCE

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FIGURE 4267

ATGTTCCGAGCGGCGGCTCCGGGGCAGCTCCGGCGGGCGGCCTCATTGCTACGATTTCAGAGTACCCTGGTAATA
GCTGAGCATGCAAATGATTCCCTAGCACCCATTACTTTAAATACCATTACTGCAGCCACACGCCTTGGAGGTGAA
GTGTCCTGCTTAGTAGCTGGAACCAAATGTGACAAGGTGGCACAAGATCTCTGTAAAGTAGCAGGCATAGCAAAA
GTTCTGGTGGCTCAGCATGATGTGTACAAAGGCCTACTTCCAGAGGAAGTACACCATTTGATTTTGGCAACTCAG
AAGCAGTTCAATTACACACACATCTGTGCTGGAGCATCTGCCTTCGGAAAGAACCTTTTGCCCAGAGTAGCAGCC
AAACTTGAGGTTGCCCGATTTCTGACATCATTGCAATCAAGTCACCTGACACATTGTGAGAACTATTTATGCA
GGAAATGCTCTATGTACAGTGAAGTGTGATGAGAAAGTGAAAGTGTTCGTGTCGGTGGAAACATCCTTTGATGCT
GCAGCAACAAGTGGCGGTAGTGCCAGTTCAGAAAAGGCATCAAGTACTTCACCAGTGGAAATATCAGAGTGGCTT
GACCAGAAATTAACAAAAAGTGATCGACCAGAGCTAACAGGTGCCAAAGTGGTGGTATCTGGTGGTCGAGGCTTG
AAGAGTGGAGAGAACTTTAAGTTGTTATATGACTTGGCAGATCAACTACATGCTGCAGTTGGTGGCTTCCCCGTGCT
GCTGTTGATGCTGGCTTTGTTCCCAATGACATGCAAGTTGGACAGACGGGAAAAAATAGTAGCACCAGAAGCTTTAT
ATTGCTGTTGGAATATCTGGAGCCATCCAACATTTAGCTGGGATGAAAGACAGCAAGACAATTGTGGCAATTAAT
AAAGACCCAGAAGCTCCAATTTTCCAAGTGGCAGATTATGGAATAGTTGCAGATTTATTTAAGGTAGTTCCCTGAA
ATGACTGAGATATTGAAGAAAAAATGAAATCAGGATCATGCCTTAAAAAGAAAACTTTTGTTAAAGTATTCCACTG
AAATCACAGATATTTGTGGGTATTATAACAATCATTGGAAGCATGGAGAGCTACATTTTATAATTTGAGGGAAA
ATTTCTAACAGATGCCAGAATGCTTGTTTATGGGATTGCTGTGTTTCCTTTTAATTATTGTGGTTCCAAACAAT
TATTGTTTGAAGCTTTTTTAATTCTGTACTAAAATCTATAATAAAGCTTTTCCACAGCTTTAAAACT

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FIGURE 4268

MFRAAAPGQLRRAASLLRFQSTLVIAEHANDSLAPITLNTITAATRLGGEVSCLYAGTKCDKVAQDLCKVAGIAK
VLVAQHVDVYKGLLPEELTPLILATQKQFNHYTHICAGASAFGKNLLPRVAAKLEVAPISDIIAIKSPDTFVRTIYA
GNALCTVKCDEKVKVFSVRGTSFDAAATSGGSASSEKASSTSPVEISEWLDQKLTKSDRPELTGAKVVVSGGRGL
KSGENFKLLYDLADQLHAAVGASRAAVDAGFVPNDMQVGQTGKIVAPELYIAVGISGAIQHLAGMKDSKTIVAIN
KDPEAPIFQVADYGIVADLKFVVPENTEILKKK

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FIGURE 4269

GCAGCCGGCCCCGGGCCCCCGCCAGCCTCCCTCCTCGCGTCCCTCGGTGTCTCCGCGGGCCGGCGCGATGCGGCT
GGGCCCCGAGGACCGCGGCGTIGGGGCTGCTGCTGCTGTGCGCCGCCGCGGCCGGCGCCGGAAGGCCGAGGAGCT
GCACTACCCGCTGGGCGAGCGCGCAGCGACTACGACCGCGAGGCGCTGCTGGGCGTCCAGGAAGATGTGGATGA
ATATGTTAAACTCGGCCACGAAGAGCAGCAAAAAAGACTGCAGGCGATCATAAAGAAAATCGACTTGGACTXCAG
ATGGCTTTCTCACTGAAAGTGAACCTCAGTTCATGGATTGAGATGTCTTTTAAGCATTATGCTATGCAAGAAGCAA
AACAACAGTTTGTGTAATATGATAAAAAAGTGATGATACTGTGACTTGGGATGAATATAACATTCAGATGTATG
ATCGTGTGATTGACTTTGATGAGAACACTGCTCTGGATGATGCAGAAGAGGAGTCCTTTAGGAAGCTTCACTTAA
AGGACAAGAAGCGATTTGAAAAAGCTAACCAGGATTGAGGTCCCGGTTTGAGTCTTGAAGAATTTATTGCTTTTG
AGCATCCTGAAGAAGTTGATTATATGACGGAATTTGTCAATCAAGAAGCTTTAGAAGAACATGACAAAAATGGTG
ATGGATTTGTTAGTTTGGAAGAATTTCTTGGTGATTACAGGTGGGATCCAAGTCAAATGAAGATCCAGAATGGA
TACTTGTGAGAAAGACAGATTTCGTGAATGATTATGACAAAGATAACGATGGCAGGCTTGATCCCCAAGAGCTGT
TACCTTGGGTAGTACCTAATAATCAGGGCATTGCACAAGAGGAGGCGCTTCATCTAATTGATGAAATGGATTGGA
ATGGTGACAAAAAGCTCTCTGAAGAAGAGATTCTGGAAAACCCGGACTTGTTTCTCACCAGTGAAGCCACAGATT
ATGGCAGACAGCTCCATGATGACTATTTCTATCATGATGAGCTTTAATCTCTGAGCCTGTCTCAGTAGAGTACTG
GCTCCTTTTATAATTTGTTACCAGCTTTACTTTTGTGATAAAATATTGATGTTGTATTTTACACTCTTAAGTCTT
AACCACAGTCAGAATTATCTTAATGTAGATTATAATTTTGGTCTTTTAGGAAAAAAAAAACAAAAATCTGATATTT
ATTTCAAATGTATTGAAGCAACAAAATATTAATATTGTGCCATATGACAACAAAGTCTTTCCTAAATACTCCAT
CTGTTTAGTACTGTATTGTGGAATATTTGAGTTCATTTCCATACTTGAAAACATGGAGGATTTTAGAGATGCCT
GAACAATATTATTTAAGTAGTATGTGACCGAGCTATAAATTTTGTGTTTGTCTAAGTAGATTTAATTTGGGAA
CTGACAGGACAATGTTTTTAGGTTTAGCATTTTGTGTTAAAAACCTTTAAAGAAACCTTTAGAAGGACTTAGACCT
CACATATTAATGTTGAGAAGTTCTGCTTAATTTTAAAATGGTTTCTATAAAGGGTTTTATTGTATGAAATAGAAC
TTTATATTTTGCATATGTATAGATAGTAATTATTTAATGTATAACTATAGCATTATGGTGAGTGAATTTGA
CATTGTCCAAACCTTTTTTCATTTTGTAGTGATTAAAAATGAAATGTCCTTTGTA

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FIGURE 4270

GAGCCCGTCTTCCGACGTGCAGCCTGGCAGTGCAGTGCAGTGTCTGGCCTTTTGTCCTTGATCCTTGGTTAAGGA
AATGACCAACCAGTACGGTATTCTCTTCAAACAAGAGCAAGCCCATGATGATGCCATTTGGTCAGTTGCTTGGGG
GACGAACAAGAAGGAAAACCTCTGAGACAGTGGTCACAGGCTCCCTAGATGACCTGGTGAAGGTCTGGAAATGGCG
TGATGAGAGGCTGGACCTACAGTGGAGTCTGGAGGGACATCAGCTGGGAGTGGTGTCTGTGGACATCAGCCACAC
CCTGCCCATTTGCTGCATCCAGCTCTCTTGATGCTCATATTGCTCTTTGGGACTTGGAAAATGGCAAACAGATAAA
GTCCATAGATGCAGGACCTGTGGATGCCTGGACTTTGGCCTTTTCTCCTGATTCCCAGTATCTGGCCACAGGAAC
TCATGTCGGGAAAGTGAACATTTTTGGTGTGGAAAGTGGGAAAAAGGAATATTCTTTGGACACGAGAGGAAAATT
CATTCCTTAGTATTGCATATAGTCCTGATGGGAAATACCTAGCCAGTGGAGCCATAGATGGAATCATCAATATTTT
TGATATTGCAACTGGAAAACCTTCTGCATACCCTGGAAGGCCATGCCATGCCCATTCGCTCCTTGACCTTTTCCCC
GGACTCCCAGCTCCTTGTCACTGCTTCAGATGATGGCTACATCAAGATCTATGATGTACAACATGCCAATTTGGC
TGGCACGCTGAGCGGCCATGCCTCCTGGGTGCTGAACGTTGCATTCTGTCTCTGATGACACTCACTTTGTTTCCAG
TTCGTCTGACAAAAGTGTAAAAGTTTGGGATGTTGGAACGAGGACTTGTGTTCACACCTTCTTTGATCACCAGGA
TCAGGTCTGGGGAGTAAAATACAATGGAATGGTTCAAAAATTGTGTCTGTTGGAGATGACCAGGAAATTCACAT
CTATGATTGTCCAATTTAAACATCAAAGTCTCCAGGCTTATGCTGCAAAGAGAATGTACGGATTGATCATGACAT
TCCTTACCTTCTTAGGCTTGTTTTAAAAGAAATATAGCATTATTTGTAGCAAAGACTTAAATTTTGTAGATACAAT
ATGAATCTTTTCATGTTTTATTGGAATGCTGTTTCATACTTTAACATAAAAGCTTCTTAATGCAAAAAAAAAAAAA
AAAAA

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FIGURE 4271

MTNQYGILFKQEQAHDDAIWSVAWG TNKKENSETVVTGSLDDLKVKWWRDERLDLQWSLEGHQLGVVSVDISHT
LP IAASSSLDAHIRLWDLENGKQIKSIDAGPVDATLAFSPDSQYLATGTHVGKVNIFGVESGKKEYSLDTRGKF
ILSIAYSPDGKYLASGAIDGIINIFDIATGKLLHTLEGHAMP IIRSLTFSPDSQLLV TASDDGYIKIYDVQHANLA
GTL SGHASWVLNVAFCPDDTHFVSSSSDKSVKVWDVGTRTCVHTFFDHQDQVWGVKYNNGSKIVSVGDDQEIH
YDCPI

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FIGURE 4272

GTGCAGGGACTTCACAGCCACACGGGCTACGAGGTGCTGCTGCAGCGGCTTCTGGATGGCAGGAAGATGTGCAA
AGACATGGAGGAGCTACTGAGGCAGAGGGCCAGGCGGAGGAGCGGTACGGGAAGGAGCTGGTGCAGATCGCACG
GAAGGCAGGTGGCCAGACGGAGATCAACTCCCTGAGGGCCTCCTTTGACTCCTTGAAGCAGCAAATGGAGAATGT
GGGCAGCTCACACATCCAGCTGGCCCTGACCCTGCGTGAGGAGCTGCGGAGTCTCGAGGAGTTTCGTGAGAGGCA
GAAGGAGCAGAGGAAGAAGTATGAGGCCGTATGGACCGGGTCCAGAAGAGCAAGCTGTGCTCTACAAGAAGGC
CATGGAGTCCAAGAAGACATACGAGCAGAAGTGCCGGGACGCGGACGACGCGGAGCAGGCC TTCGAGCGCATTAG
CGCCAACGGGCCACCAGAAGCAGGTGGAGAAGAGTCAGAACAAAGCCAGGCAGTGCAAGGACTCGGCCACCGAGGC
AGAGCGGGTATACAGGCAGAGCATTGCGCAGCTGGAGAAGGTCCGGGCTGAGTGGGAGCAGGAGCACCGGACCAC
CTGTGAGGCCCTTTCAGCTGCAAGAGTTTGACCGGCTGACCATTCTCCGCAACGCCCTGTGGGTGCACAGCAACCA
GCTCTCCATGCAGTGTGTCAAGGATGATGAGCTCTACGAGGAAGTGCGGCTGACGCTGGAAGGCTGCAGCATAGA
CGCCGACATCGACAGTTTCATCCAGGCCAAGAGCACGGGCACAGAGCCCCCGCTCCGGTGGCCCTACCAGAACTA
TTACGATCGGGAGGTCACCCCGCTGACCAGCAGCCCTGGCATAACGCCGTCCTGCGGCATGATAAAGAGGTTCTC
TGGACTGCTGCACGGAAGTCCCAAGACCACTTCGTTGGCAGCTTCTGCTGCGTCCACAGAGACCCTGACCCCCAC
CCCCGAGCGGAATGAGGGTGTCTACACAGCCATCGCAGTGCAGGAGATACAGGGAAACCCGGCCTCACCAGCCCA
GGAGTACCGGGCGCTCTACGATTATACAGCGCAGAACCCAGATGAGCTGGACCTGTCCGCGGGAGACATCCTGGA
GGTGATCCTGGAAGGGGAGGATGGCTGGTGGACTGTGGAGAGGAACGGGCAGCGTGGCTTCGTCCCTGGTTCCTA
CCTGGAGAAGCTTTGAGGAAGGGCCAGGAGCCCCTTCGGACCTGCCCTGCCAGTGGAGCCAGCAGTGCCCCCAGC
ACTGTCCCCACCTTGCTAGGGCCCAAGCAAGCGTCCCCCAGCCCCGAGAGGGAGCCTGTCGTCTCCCAGGGAA
TAAAGGAGTGCGTTCTGTT

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FIGURE 4273

GTTCAGGGAGCGGGCGGGAGCCCTGAGGGGACTGCGGCGGCTGCGCGGAGGAGCGAGGCGCTTGCTGGGGTC
GGGGCTGCGCGACGGCGCAGGGGCTGCGGGGAGCGCCGCGCAGGCCGTGCAGTTCCTAGCGAGGAGGCGCCGCCG
CCATTGCCGCTCTCTCGGTGAGCGCAGCCCCGCTCTCCGGGCGGGCCTTCGCGGGCCACCGGCGCCATGGGCCA
GTGCGGCATCACCTCCTCCAAGACCGTGCTGGTCTTTCTCAACCTCATCTTCTGGGGGCGAGCTGGCATTATG
CTATGTGGGAGCCTATGTCTTCATCACTTATGATGACTATGACCACTTCTTTGAAGATGTGTACACGCTCATCCC
TGCTGTAGTGATCATAGCTGTAGGAGCCCTGCTTTTCATCATTGGGCTAATTGGCTGCTGTGCCACAATCCGGGA
AAGTCGCTGTGGACTTGCCACGTTTGTCAATCATCTGCTCTTGGTTTTTGTACAGAAGTTGTTGTAGTGGTTTT
GGGATATGTTTACAGAGCAAAGGTGGAAAATGAGGTTGATCGCAGCATTGAGAAAGTGATAAGACCTACAATGG
AACCAACCTGATGCTGCTAGCCGGGCTATTGATTATGTACAGAGACAGCTGCATTGTTGTGGAATTCACAACTA
CTCAGACTGGGAAAATACAGATTGGTTCAAAGAAACCAAAAACCAGAGTGTCCCTCTTAGCTGCTGCAGAGAGAC
TGCCAGCAATTGTAATGGCAGCCTGGCCCACCTTCCGACCTCTATGCTGAGGGGTGTGAGGCTCTAGTTGTGAA
GAAGCTACAAGAAATCATGATGCATGTGATCTGGGCCGCACTGGCATTTCAGCTATTGAGCTGCTGGGCATGCT
GTGTGCTTGCACTGTTGTGTCAGAAGGAGTAGAGATCCTGCTTACGAGCTCCTCATCACTGGCGGAACCTATGC
ATAGTTGACAACCTCAAGCCTGAGCTTTTTTGGTCTTGTCTGATTGGAAGGTGAATTGAGCAGGTCTGCTGCTGT
TGGCCTCTGGAGTTTATTTAGTTAAAGCACATGTACACTGGTGTGGACAGAGCAGCTTGGCTTTTCATGTGCC
ACCTACTTACCTACTACCTGCGACTTTCTTTTTCTTGTCTAGCTGACTCTTCATGCCCTAAGATTTTAAGTA
CGATGGTGAACGTTCTAATTTTCAAGCAATTCGAGTGCATGTAGTGTGGTAGAATTAAGGAGGACACGAGCCT
GCTTCTGTTACCTCCAAGTGGTAACAGGACTGATGCCGAAATGTCACCAGGTCCTTTCAGTCTTCACAGTGGAGA
ACTCTTGGCCAAAGGTTTTTGGGGGAGGAGGAGGAAACCAGCTTTCTGGTTAAGGTTAACACCAGATGGTGCCC
CTCATTGGTGTCTTTTAAAAAATATTTACTGTAGTCCAATAAGATAGCAGCTGTACAAAATGACTAAAATAGAT
TGTAGGATCATATGGCGTATATCTTGGTTCATCTTCAAATCAGAGACTGAGCTTTGAACTAGTGGTTTTTAAT
CAAAGTTGGCTTTATAGGAGGAGTATAATGTATGCACTACTGTTTTAAAGAATTAGTGTGAGTGTGTTTTGT
TGAATGAGCCCATTTCATGGTAAGTCTTAAGCTTGTGGAAATAATGTACCCATGTAGACTAGCAAAATAGTATGT
AGATGTGATCTCAGTTGTAAATAGAAAAATCTAATTCAATAAACTCTGTATCAGCCCCAACATATTATTTTCA
TTATTTGGGGGATATTTAGTTCCAAAAA

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FIGURE 4274

MGQCGITSSKTVLVFLNLIFWGAAGILCYVGAYVFITYDDYDHFFEDVYTLIPAVVIIAVGALLFIIGLIGCCAT
IRESRCGLATFVIILLLVFVTEVVVVVLGYVYRAKVENEVDRSIQKVYKTYNGTNPDAASRAIDYVQRQLHCCGI
HNYSDWENTDWFKETKNQSVPLSCCRETASNCNGSLAHPSDLYAEGCEALVVKKLQEIMMHVIWAALAFAAIQLL
GMLCACIVLCRRSRDPAYELLITGGTYA

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FIGURE 4275

CTTTCTTTGCTGCGTCTACTGCGAGAATGAAAGACTATTCTCAGCAATCAGACTGTCGACATTCCAGAAAATGTCG
ACATTACTCTGAAGGGACGCACAGTTATCGTGAAGGGCCCCAGAGGAACCCTGCGGAGGGACTTCAATCACATCA
ATGTAGAACTCAGCCTTCTTGGAAAGAAAAAAAAGAGGCTCCGGGTTGACAAATGGTGGGGTAACAGAAAGGAAC
TGGCTACCGTTCGGACTATTTGTAGTCATGTACAGAACATGATCAAGGGTGTACACTGGGCTTCCGTTACAAGA
TGAGGTCTGTGTATGCTCACTTCCCCATCAACGTTGTTATCCAGGAGAATGGGTCTCTTGTTGAAATCCGAAATT
TCTTGGGTGAAAAATACATCCGCAGGGTTCGGATGAGACCAGGTGTTGCTTGTTTCAGTATCTCAAGCCCAGAAAG
ATGAATTAATCCTTGAAGGAAATGACATTGAGCTTGTTTCAAATTCAGCGGCTTTGATTTCAGCAAGCCACAACAG
TTAAAAACAAGGATATCAGGAAATTTTGGATGGTATCTATGTCTCTGAAAAAGGAACTGTTTCAGCAGGCTGATG
AATAAGATCTAAGAGTTACCTGGCTACAGAAAGAAGATGCCAGATGACACTTAAGACCTACTTGTGATATTTAAA
TGATGCAATAAAAGACCTATTGATTTGGA

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FIGURE 4276

MKTILSNQTVDIPENVDTILKGRTVIVKGPRGTLRRDFNHINVELSLGKKKKRLRVDKWWGNRKELATVRTICS
HVQNMIKGVTLGFRYKMRSVYAHFPINVVIQENGSLVEIRNFLGEKYIRRVRMRPGVACSVSQAQKDELILEGND
IELVSNSAALIQQATTVKNKDIRKFLDGIYVSEKGTVQQADE

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FIGURE 4278

GCGCAAGAGCCAAGCCGCCAGCGCTGCGATGTGGGCCACGCTGCCGCTGCTCTGCGCCGGGGCCTGGCTCCTGGG
AGTCCCCGTCTGCGGTGCCGCCGAAGTGTGCGTGAAGTCTCTTAGAGAAGTTTCACCTTCAAGTCATGGATGTCTAA
GCACCGTAAGACCTACGTACGGAGGAGTACCACCACAGGCTGCAGACGTTTGCCAGCAACTGGAGGAAGATAAA
CGCCCACAACAATGGGAACACACATTTAAATGGCACTGAACCAATTTTCAGACATGAGCTTTGCTGAAATAAA
ACACAAGTATCTCTGGTCAGAGCCTCAGAATTGCTCAGCCACCAAAAGTAACTACCTTCGAGGTACTGGTCCCTA
CCCACCTTCCGTGGACTGGCGGAAAAAAGGAAATTTTGTCTCACCTGTGAAAAATCAGGGTGCCTGCGGCAGTTG
CTGGACTTTCTCCACCACTGGGGCCCTGGAGTCTGCGATCGCCATCGCAACCGGAAAGATGCTGTCCTTGGCGGA
ACAGCAGCTGGTGGACTGCGCCAGGACTTCAATAATCACGGCTGCCAAGGGGGTCTCCCCAGCCAGGCTTTTGA
GTATATCCTGTACAACAAGGGGATCATGGGTGAAGACACCTACCCCTACCAGGGCAAGGATGGTTATTGCAAGTT
CCAACCTGGAAAGGCCATCGGCTTTGTCAAGGATGTAGCCAACATCACAATCTATGACGAGGAAGCGATGGTGG
GGCTGTGGCCCTCTACAACCCTGTGAGCTTTGCCTTTGAGGTGACTCAGGACTTCATGATGTATAGAACCGGCAT
CTACTCCAGTACTTCTGCCATAAACTCCAGATAAAGTAAACCATGCAGTACTGGCTGTTGGGTATGGAGAAAA
AAATGGGATCCCTTACTGGATCGTGAAGAACTCTTGGGGTCCCCAGTGGGGAATGAACGGGTACTTCTCATCGA
GCGCGGAAAGAACATGTGTGGCTGGCTGCCTGCGCCTCCTACCCCATCCCTCTGGTGTGAGCCGTGGCAGCCGC
AGCGCAGACTGGCGGAGAAGGAGAGGAACGGGCAGCCTGGGCCTGGGTGGAAATCCTGCCCTGGAGGAAGTTGTG
GGGAGATCCACTGGGACCCCAACATTCTGCCCTCACCTCTGTGCCAGCCTGGAAACCTACAGACAAGGAGGAG
TTCCACCATGAGCTCACCCGTGTCTATGACGCAAAGATCACCAGCCATGTGCCTTAGTGTCTTCTTAACAGACT
CAAACCACATGGACCACGAATATTCTTTCTGTCCAGAAGGGCTACTTTCCACATATAGAGCTCCAGGGACTGTCT
TTTCTGTATTGCTGTTCAATAAACATTGAGTGAGCACCTCC

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FIGURE 4279

GGCAAATCCGGCCCCAGGATGTAGAGCTGGCAGTGCCTGACGGCGCGTCTGACGCGGAGTTGGGTGGGGTAGAGAG
TAGGGGGCGGTAGTCGGGGGTGGTGGGAGAAGGAGGAGGCGGCGAATCACTTATAAATGCGCGCCGAAGCAGGACC
CGAAGCCTAAATTCAGGAGGGTGAGCGAGTGCTGTGCTTTTCATGGGCCTCTTCTTTATGAAGCAAAGTGTGTAA
AGGTTGCCATAAAGGACAAACAAGTGAAATACTTCATACATTACAGTGGTTGGAATAAAAATTGGGATGAATGGG
TTCCGGAGAGCAGAGTACTCAAATACGTGGACACCAATTTGCAGAAACAGCGAGAACTTCAAAAAGCCAATCAGG
AGCAGTATGCAGAGGGGAAGATGAGAGGGGCTGCCCCAGGAAAGAAGACATCTGGTCTGCAACAGAAAAATGTTG
AAGTGAAAACGAAAAAGAACAAACAGAAAAACCTGGAAATGGAGATGGTGGCAGTACCAGTGAGACCCCTCAGC
CTCCTCGGAAGAAAAGGGCCCGGTAGATCCTACTGTTGAAAATGAGGAAACATTTCATGAACAGAGTTGAAGTTA
AAGTAAAGATTCTGAAGAGCTAAAACCGTGGCTTGTGATGACTGGGACTTAATTACCAGGCAAAAACAGCTCT
TTTATCTTCTGCCAAGAAGAAATGTGGATTCCATTCTTGAGGATTATGCAAATTACAAGAAATCTCGTGGAACA
CAGATAATAAGGAGTATGCGGTTAATGAAGTTGTGGCAGGGATAAAAGAATACTTCAACGTAATGTTGGGTACCC
AGCTACTCTATAAATTTGAGAGACCACAGTATGCTGAAATTTCTGCAGATCATCCCGATGCACCCATGTCCCAGG
TGTATGGAGCGCCACATCTCCTGAGATTATTTGTACGAATTGGAGCAATGTTGGCTTATACACCTCTGGATGAGA
AGAGCCTTGCTTTTATTACTCAATTATCTTCACGATTTCCTAAAGTACCTGGCAAAGAATTCTGCAACTTTGTTCA
GTGCCAGCGATTATGAAGTGGCTCCTCCTGAGTACCATCGGAAAGCTGTGTCAGAGGCACTCTCACTCACTTATG
TTTGGATCTCCGTAAACACATTTTGTCTTAGTCTATCTCTGTACAAACGATGTGCTTTGAAGATGTTAGTGT
ATAACAATTGATGTTTGTCTTGTGTTTAAACAGAGAAAAAATAAAAGGGGGTAATAGCTCCTTTTTTCT
TCTTTCTTTTTTTTTTTTCAATTTCAAATTTGCTGCCAGTGTTCATGATGGACAACAGAGGGATATGCTGTAGA
GTGTTTTATTGCCTAGTTGACAAAGCTGCTTTTGAATGCTGGTGGTTCTATTCCTTTGACACTACGCACCTTTAT
AATACATGTTAATGCTATATGACAAATGCTCTGATTCTAGTGCCAAAGGTTCAATTCAGTGTATATAACTGAA
CACACTCATCCATTTGTGCTTTTGTCTTTTATGGTGCTTAAAGTAAAGAGCCCATCCTTTGCAAGTCATCCA
TGTTGTTACTTAGGCATTTTATCTTGGCTCAAATTTGTTGAAGAATGGTGGCTTGTTCATGGTTTTGTATTTGT
GTCTAATGCACGTTTTTAACATGATAGACGCAATGCATTGTGTAGCTAGTTTTCTGGAAAAGTCAATCTTTTAGGA
ATTGTTTTTTCAGATCTTCAATAAATTTTTTCTTTAAATTC

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FIGURE 4280

MAPKQDPKPKFQEGERVLCFHGPLL YEAKCVKVAIKDKQVKYFIHYSGWNKNWDEWVPESRVLKYVDTNLQKQRE
LQKANQEQYAEGKMRGAAPGKKTSGLQQKNVEVKTKKNKQKTPGNGDGGSTSETPQPPRKKRARVDPTVENEETF
MNRVEVKVKIPEELKPWLVDWDLITRQQLFYLPKKNVDSILEDYANYKKSRGNTDNKEYAVNEVVAGIKEYF
NVMLGTQLLYKFERPQYAEILADHPDAPMSQVYGAPHLRLRFVRIGAMLAYTPLDEKSLALLLNHLHDFLKYLA
NSATLFSASDYEVAPEYHRKAV

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FIGURE 4281

GAACCGCCATCTTCCAGTAATTCGCCAAAATGACGAACACAAAGGGAAAGAGGAGAGGCACCCAATATATGTTCT
CTAGGCCTTTTAGAAAACATGGAGTTGTTGCTTTGGCCACGTATATGCAAATCTATAAGAAAGGTGATATTGTAG
ACATCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGTGTTACCATGGCAAACTGGAAGAGTCTATA
ATGTCCCCCAGCATGCTGTTGGCATTGTTGTAAACACACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAATG
TGCGTATTGAGCACATTAAGCACTCTAAAAGCTGAGATAGTTTCCTGAAACACATGAAGGAAAATGATCAGAAAA
AGAAGGAAGCCAAATAGAAAGGTACCTGGGTTCAACAGAAGCACCAGCCTGCTCCACCCAGAGAAGCACACTTTG
TGAGAACCAATGCGAAGGAGCCTGAGCTGCTGGAACCTATTCCCTATGAATTCATGGCATAACAGGTGTTAATAA
ATAAATAAAAGACCTCTGGGCTGT

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FIGURE 4282

CTTTCTTTGCTGCGTCTACTGCGAGAATGAAGACTATTCTCAGCAATCAGACTGTCGACATTCCAGAAAATGTCG
ACATTACTCTGAAGGGACGCACAGTTATCGTGAAGGGCCCCAGAGGAACCCTGCGGAGGGACTTCAATCACATCA
ATGTAGAACTCAGCCTTCTTGGAAGAAAAAAGAGGCTCCGGGTTGACAAATGGTGGGGTAACAGAAAGGAAC
TGGCTACCGTTCGGACTATTTGTAGTCATGTACAGAACATGATCAAGGGTGTTACACTGGGCTTCCGTTACAAGA
TGAGGTCTGTGTATGCTCACTTCCCCATCAACGTTGTTATCCAGGAGAATGGGTCTCTTGTTGAAATCCGAAATT
TCTTGGGTGAAAAATACATCCGCAGGGTTCGGATGAGACCAGGTGTTGCTTGTTTCAGTATCTCAAGCCCAGAAAG
ATGAATTAATCCTTGAAGGAAATGACATTGAGCTTGTTTCAAATTCAGCGGCTTTGATTTCAGCAAGCCACAACAG
TTAAAAACAAGGATATCAGGAAATTTTGGATGGTATCTATGTCTCTGAAAAAGAAGATGCCAGATGACACT

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FIGURE 4283

CCTCTTTTACCAAGGACCCGCCAACAATGGGCCGCGTTCGCACCAAAACCGTGAAGAAGGCGGCCCGGGTCATCAT
AGAAAAGTACTACACGCGCCTGGGCAACGACTTCCACACGAACAAGCGCGTGTGCGAGGAGATCGCCATTATCCC
CAGCAAAAAGCTCCGCAACAAGATAGCAGGTTATGTCACGCATCTGATGAAGCGAATTCAGAGAGGCCAGTAAG
AGGTATCTCCATCAAGCTGCAGGAGGAGGAGAGAGAAAGGAGAGACAATTATGTTCTGAGGTCTCAGCCTTGGA
TCAGGAGATTATTGAAGTAGATCCTGACACTAAGGAAATGCTGAAGCTTTTGGACTTCGGCAGTCTGTCCAACCT
TCAGGTCACTCAGCCTACAGTTGGGATGAATTTCAAACGCCTCGGGGACCTGTTTGAATTTTTTCTGTAGTGCT
GTATTATTTTCAATAAATCTGGGACAACAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4284

MGRVRTKTVKKAARVIEKYYTRLGNDFHTNKRVC EEIAIIPSKKLRNKIAGYVTHLMKRIQRGPVRGISIKLQE
EERERRDNYVPEVSALDQEIEVDPDTKEMLKLLDFGSLSNLQVTQPTVGMNFKTPRGPV.

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FIGURE 4285

CAGTGGCAGCATGGAACCTGCATTTTCATAGAGGAGATCTTCTCTTTCTAACAAATCGAGTTGAAGATCCCATACG
AGTGGGAGAAATTGTTGTTTTTAGGATAGAAGGAAGAGAGATTCCATAGTTCACCGAGTCTTGAAGATTCATGA
AAAGCAAAATGGGCATATCAAGTTTTTGACCAAAGGAGATAATAATGCGGTTGATGACCGAGGCCTCTATAAACA
AGGACAACATTGGCTAGAGAAAAAGATGTTGTGGGGAGAGCCAGGGGATTTGTTTCCTTATATTGGAATTGTGAC
GATCCTCATGAATGACTATCCTAAATTTAAGTATGCAGTTCTCTTTTTGCTGGGTTTATTCGTGCTGGTTCATCG
TGAGTAAGAAGCCTGCCTTGCTGTTCTGGGAAGATGCCATAGTTTTCGTTACTGGATGTTTGGAGTAGATACTG
GTCTGTGATTGGTGAATGGAGAACACACGTGTTGGTGCTTCTGGGTAGCACTGGTTTGCATTAGTTTATGTTTC
CATGCCAGAGTTTGTGTGGCGGGCGCATGTGCACCACAGAGTGCACCTCGAGGGGACTTTCAGTCACAGGATTC
ATAATTGTCATTGTCACACTTTCAAATTTTTGTACATCAGTGAATTTTTTATATTAAAAGGTTGAGCCAAAGCC
CCCAGTGTGTTGTATTTTGAAGCCAAGCTTCACCTCTAAAGTGCCTACAGAGACTTGTAATGAAAATGCAGCTCT
GCACGAGTTTGAAACCGTCATACCTCCTTCTATTAGGAATGGCATATACTGAGGTGGTCGTAAGTCTTAACTTCT
AAAATTTTAAATAAAAAGACTTTGCACATTG

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FIGURE 4286

AATCCTTGCGCTTGTAATCGTACGGGGCTGGGACATGGGAGCTGGGCCTGGAGCTTGCCCTGGCGGGCGGATGGG
TGTGGGTGGAGGCACGTTGGGGATCCTGGTGCAGAGTGGGCCAGCTGTGGCCTCGGGGCTCGCCACCGTGGAGGA
CTCCGCTGGGCCTAGGCCCCATCTCTAGGAAATGGCTCCTTCCTGCGTGCGCGCTTGTGAGATTACTAGTAA
GAGCCGCGCTTGTGAAGACGCAGTGCCAGTTAGTTTGCGCCAGCCTCTGAGTTCAGCTCAGAACACAGATGATC
TCATTGATTCCCTCACGTCAACCTTGGGAAATCTGGGTACCCTGGGACGTCCACACATGAGGACCGAGGCTCAGGG
ACATCAAGGGACTGGCCTGGTCCCAGAAACAGGGAGTAAAATGGGAAGTAAACTCAGTCCCACGTCTGCCTGACT
CCAGAGTTTGGGCCACTGAACCATGCGGCTGCCATCTTGGAGTTCTTTGAGCTGTGAAGTGCTGTGCATCGTGTG
ATTCTGTGTCCCTTTTGTGCAGGTACCAGGATTTCTATGCATTTCGACCTGTCAGGAGCCACTCGAGTCCTTGAAT
GGATTGATGACAAAGGAGTCTTTGTTGCTGGCTATGAAAGCCTGAAAAAGAATGAAATTCTTCATCTGAAATTAC
CTCTCAGACTTTCTGTAAAGGAAAACAAGGGCTTATTCCCAGAAAGAGATTTCAAAGTGCGCCATGGAGGATTTT
CAGACAGGTCTATCTTTGATCTAAAGCATGTGCCACATACCAGATTGCTGGTTACCAGTGGCCTTCCAGGTTGTT
ATCTGCAGGTGTGGCAGGTTGCAGAGGACAGTGGTGAGTGAATTTGACTTGATGGGGTTTGGGGTTCTAGGAAAAG
TGTGACTCATACACCCTGTCCCCTAATCTGAGCCAGTTAAGAAGGAGACTCAGGCTGGGGACAGTCTCATGCCT
GTAATTGTAGCACTTTGGGAGGCTGAGCTGGGTGGATCACTTGAATTCAGGAGTTGAAGACCACCTTGTACAACA
TGGTGAAACCTGTCTCTATTAATAAATACAAAAAATTAGCCGGGCATGGTGGTAGGCACCTGTAATCCCTGCTACT
GGGAGACTGAGGCAGGAGAATTGCTTGAACCTGGGAGGCGGAGGTTACAGTGAGCCGAGATCATGCCACTGCAC
TCCAGCCTGGGCAACAAGAGCAAACTCCGTCTCCAAAAAAGTAGTAGTAGTACTCAGAGCCAGGTGGGAAT
TAATCTACTTTAATGC

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FIGURE 4287

CCGGAAGAGACACGCGGGGCTTCAGGCTGCTGCCCCATTGGAAGATTACTCCCCAGGCTTCCCTTGCCCCAAGCA
GTGAGCTGACTGGAATGGTACCCCGGGAGGCCCTGAGTCTGCTCAGTGCCCTGTGCCCTTCCCTCACCATCCCAA
ATGCCAAGGATGTGCTTCGGAAGAGGCACAAGAGAAGGAGCCGACAGCACCAGCGGTTTCATGGCCCGGAAGGCCT
TGCTGCAGGAGCAGGGGCTGCTGAGCATGCCTCCAGAACCAGGGTCTCTCCCACTGCCCACCCCTTTCGGGGCAG
CGACAGCAACTGAAGCTGCCAGCAGTGGGAAGCAGTGTCTGAGGGCTGGATCTGGCAGTGCCCCATGCAGCAGAA
GGCCTGCTCCCGGGAAGCCTCAGGGCCCTTGCCAGCAAGTGTGTGGCTATCGACTGTGAGATGGTGGGCACGG
GACCCCGAGGGCGGGTAAGCGAGCTGGCCCGCTGTTCCATTGTGAGCTACCATGGCAATGTCTCTATGACAAGT
ACATCAGGCCTGAGATGCCCATCGCTGACTACCGTACCCGCTGGAGTGGCATCACTCGGCAGCACATGCGCAAGG
CTGTCCCTTCCAGGTGGCCAGAAAGAGATCCTTAAGCTCCTGAAGGGCAAGGTGGTGGTGGGGCACGCGCTGC
ACAACGACTTCCAGGCGCTCAAGTATGTCCACCCTCGGAGCCAGACCCGGGATACGACCTATGTCCCAAACCTCC
TCAGCGAGCCCGGCCTCCACACCCGGGCCCGGGTCTCTCTAAAGGACCTGGCCCTGCAGCTGCTGCACAAGAAGA
TCCAGGTGGGCCAGCACGGGCACCTCATCAGTAGAAGATGCCACGACAGCCATGGAGCTCTACCGGCTGGTGGAGG
TGCAGTGGGAACAGCAGGAGGCCCGCAGCCTCTGGACCTGCCCGGAGGACAGAGAACCTGACAGCAGCACAGACA
TGGAACAGTACATGGAGGACCATCCACCCAGTACTGGGCTCTTAAGCAAAAGTCTGAGAAACAAGACAGTGGTTT
GAATTCTGGGGCCTTTGTGTAGGATTGTGCCTGACCTTTATTTATTTATTAACAGCAGGGCCACTCGTCTAGGGC
AGTGGAGTCTGCGTGTCTCTGGGGCTGGGGCAGGGCATTGGCAGTTACGCAGTGGCCCTGAACCTGGTCTGGTG
CCCCGAACCTGGTCTGATGCCCCCTCAGCTCTTTGACAATCACTGTGGCTGTTGGGTTTTCTCCTATTTCTAAA
AATGTTCTCTTTCTTTCTTAAGTGACAGTTTTGAAGTATTGGATAACCAAGAGCTCAGGTACACAGACCTTGGAG
CCCCATCTTTGCTTGCAGCTTAGCTTTGAGATACTAAGCAAGCGAGGGACTTCACTCTTGAGGCTGTTTTTTCCT
CATCTGTAAAGTGGGGATAGTGGTACGGCCTACCTCATAGGGTTGTAATGAGCACTAAATGTGAAGTGCTTGGCA
CAGTGCCCTGGCACATGGTGAGCCACAGCTACTGTGAGTTTCTGTTTATCCCCCTTTTTTTTTTTTAAAGCCATTG
TTTATTCTTTGAGAATTTGTTGTAACCTCTTCAGGATAACACCTGAGTCCACAGGCTGAGCAGCTGTGGCCAGCA
CAGAACTGCTCCGGCTTGGCTGTTCCAGCAGGTGGGGCCTGGCCTCGGTGAGGGCACAGCAGCAAGGTTACCGG
ATATCCGTGTGTCTTGTCTGTGGCCACCAGGCACAGGTTTGGCTTCCGGTCAGTGTCCCGACACTGTGCGGGAGG
TGACAACAGAGCAAAGCAGCGCAGGGGTCAGGGAGGTACAGACACTGCTGAAATCACACTACCCACCCCTCAGCT
GAAGCCCCACGTTCCACAAACTTGGGGTCATAGATTGTCCAGTCACTGGCTCCCTCCCTGTGAGCACAGCACAGA
GGAAGGGGCTAACTGAATCTTTTACCCTTCTGGCCTGGCTCCAGAACCTTTGTTCTAGATTCTTTAAAAGTCGGT
AGCTGATGTCAAACCAATTGAGCAGTAGCTTTGATCCCTTGGTCTGGGGGTCGAAGGAAGATGGTGCTGTTATC
AGCGGGGAAATGTACTATTTAAGATCAGCTTTGTTGTAAACCATTGTTCTAGAATAAACTCAATTGGAACG
TG

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FIGURE 4288

MVPREAPESAQCCLCPSLTIPNAKDVLKRHRKRRSRQHQRFFMARKALLQEQGLLSMPPEPGSSPLPTPFGAATATE
AASSGKQCLRAGSGSAPCSRPAAPGKASGPLPSKCVADCEMVGTGPRGRVSELARCSIVSYHGNVLYDKYIRPE
MPIADYRTRWSGITRQHMRKAVPFQVAQKEILKLLKGKVVVGHALHNDQALKYVHPRSQTRDTTYVPNFLSEPG
LHTRARVSLKDLALQLLHKKIQVGQHGHSVEDATTAMELYRLVEVQWEQQEARS LWTCPEDREPDSSSTDMEQYM
EDQYWPDDL AHGSRGGAREAQDRRN

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FIGURE 4289

CCAAATGCCAAGGATGTGCTTCGGAAGAGGCACAAGAGAAGGAGCCGACAGCACCAGCGGTTTCATGGCCCGGAAG
GCCTTGCTGCAGGAGCAGGGGCTGCTGAGCATGCCTCCAGAACCAGGGTCCTCCCCACTGCCACCCCTTTCGGG
GCAGCGACAGCAACTGAAGCTGCCAGCAGTGGGAAGCAGTGTCTGAGGGCTGGATCTGGCAGTGCCCCATGCAGC
AGAAGGCCTGCTCCCGGGAAAGCCTCAGGGCCCTTGCCCAGCAAGTGTGTGGCTATCGACTGTGAGATGGTGGGC
ACGGGACCCCGAGGGCGGGTAAGCGAGCTGGCCCGCTGTTCCATTGTGAGCTACCATGGCAATGTCCTCTATGAC
AAGTACATCAGGCCGTGAGATGCCCATCGCTGACTACCTCTTCCTCCACTCATTTGGGTTTCAATAAACATGTCC
TGAAGTTAAAGAGGAGTTAAGTCCTAAAGGAGGCATTTCTTCCCCACCTCCCTGACCTGGAACCTCTGGCTACAGC
CATTGTAGGAACTCCGTGCCTGGCCTGTCAGCTCCCTGCTAGGCTACAGTGGAAATAGCAGAGCCACAGGCTTCT
CGTGGGGAGTTGGCTCCTTAACATTTCTTGGCAACAGAAAGCCCCAGGCACAGCTCAGGGAGGAGGAAGGCAGG
TAAGCTTTGGACGAGAACTGGCATATTTATTTGACCCAAATCAGGGATTTCCTCCAGTCCACCCAGTACTGGGCT
CTTAAGCAAAAGTCTGAGAAAC

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FIGURE 4290

AGTCCCGGAAGTCTAGAACGAACCATTCGCATATGGAGGGGGGTGACCCACCATCTCAGAACATTAAAAAAGGGA
AAGAATCCCTGGTGAAGTACAGTGAAAGTCTTATTGAGCATTTAAATGGAAATAAAAAATATTAGTGGACCTAA
TGAAGAGTAGATGACTTTCCCTTCTGTCCCCTCCCCGACAGGCACTCATGGTACCGGCGCCGGCGCAGCTGTGAC
TGTGCTGCAGACGGAAAGTGAAGTGGGGTCAATTCAAGTCAATGAGGCTGTGAGAAACGCGGGGTGCGGGTTCT
GCGGTCTGGACTTGGCCCCAGACAGCCGGCAGGGTCTGTGGCCAGAACGCGGCGCCGGGACCATCTGCACAGGCGC
TCGACAGCTCCAAGACGCTGCGGCCAAGCAGAAAGTTGAACAGAACGCGGCTCCCAGCCACACCAAGTTCAGCAT
TTACCTCTCCATTCCAGGAGAGGAGAGCTCTCTGAGGTGGGCAGGAAAGAAATTTGAGGAGATCCCAATTGCACA
CATTAAAGCATCCCACAACAACACACAGATCCAGGTAGTCTCTGCTAGTAATGAGCCCCCTTGCCCTTTGCTTCCTG
TGGCACAGAGGGATTTGGAATGCCAAGAAGGGCACAGGCATCGCAGCACAGACAGCAGGCATAGCCGCAGCGGC
GAGAGCTAAACAAAAGGGCGTGATCCACATCCGAGTTGTGGTGAAAGGCCTGGGGCCAGGACGCTTGTCTGCCAT
GCACGGACTGATCATGGGCGGCCTGGAAGTGATCTCAATCACAGACAACACCCCAATCCCACACAACGGCTGCCG
CCCCAGGAAGGCTCGGAAGCTGTGATGGGAAGGAGGCCTGCACCTGGACCTGACCTCAAGCCTCAGCTCCAGTGG
GACCTTGTAAGTATGCTCCCTGTGAGAGCTCTCCAGAATATGCTTGTGGAGATCCTTCAGGCAGTAAGGGAGAGT
TTTGCTCCTTACACAGTGGCCTTTGCTTGACCTCCAGCTGGAGATGGGTGTGCCCCAGAAGTAAGCTTTGCAT
CTCTTACAAGAGGGGAGCTACAGGGGCAGCCGTGGCCTAGGCCCAAACCTCTGCTCTGAGAAAATAAATATCTGTA
CCACCTGTCAA

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FIGURE 4291

MQAVRNAGSRFLRSWTWPQTAGRVVARTPAGTICTGARQLQDAAAKQKVEQNAAPSHTKFSIYPPIPGEESSLRW
AGKKFEEIPIAHIKASHNNTQIQVVSASNEPLAFASCGTEGFRNAKKG TGIAAQTAGIAAAARAKQKGVHIRVV
VKGLGPGRLSAMHGLIMGGLEVISITDNTPIPHNGCRPRKARKL

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FIGURE 4292

TAATTTTTGCCAGTCTGCCTGTTGTGGGGCTCCTCCCTTTGGGGATATAAGCCCGGCTGGGGCTGCTCCGTT
CTCTGCCTGGCCTGAGGCTCCCTGAGCCGCTCCCCACCATCACCATGGCCAAGGGCTTCTATATTTCCAAGTCC
CTGGGCATCCTGGGGATCCTCCTGGGCGTGGCAGCCGTGTGCACAATCATCGCACTGTCACTGGTGTACTCCAG
GAGAAGAACAAGAAGCCAAACAGCTCCCCCGTGGCCTCCACCACCCCGTCCGCTCAGCCACCACCAACCCCGCC
TCGGCCACCACCTTGACCACAAAGTAAAGCGTGAATCGTTACCGCCTCCCCAACACGCTGAAACCCGATTCTAC
CGGGTGACGCTGAGACCGTACCTCACCCCAATGACAGGGGCTGTACGTTTTTAAGGGCTCCAGCACCCTCCGT
TTCACCTGCAAGGAGGCCACTGACGTATCATCATCCACAGCAAGAAGCTCAACTACACCCTCAGCCAGGGCACA
GGGTGGTCTGCGTGGTGTGGGAGGCTCCAGCCCCCGACATTGACAAGACTGAGCTGGTGGAGCCACCGAGT
ACCTGGTGGTGCACCTCAAGGGCTCCCTGGTGAAGGACAGCCAGTATGAGATGGACAGCGAGTTCGAGGGGGAGT
TGGCAGATGACCTGGCGGGCTTCTACCGCAGCGAGTACATGGAGGGCAATGTCAGAAAGGTGGTGGCCACTACAC
AGATGCAGGCTGCAGATGCCCGGAAGTCTTCCCATGCTTCGATGAGCCGGCCATGAAGGCCGAGTTCAACATCA
CGCTTATCCACCCCAAGGACCTGACAGCCCTGTCCAACATGCTTCCCAAAGGTCCAGCACCCCACTTCCAGAAG
ACCCCAACTGGAATGTCAGTGTCCACACCACGCCCAAGATGTCCACGTACTTGTGGCTTCATTGTCACTG
AGTTCGACTACGTGGAGAAGCAGGCATCCAATGGTGTCTTGATCCGGATCTGGGCCCGGGCCAGTGCCATTGCGG
CGGGCCACGGCGATTATGCCCTGAACGTGACGGGCCCCATCCTTAACCTTCTTGTGGTCAATTATGACACACCCCT
ACCCACTCCCAAAATCAGACCAGATTGGCCTGCCAGACTTCAACGCCGGCGCCATGGAGAAGTGGGGACTGGTGA
CCTACCGGGAGAAGTCCCTGCTGTTGACCCCTGTCTCTCCAGCAGCAACAAGGAGCGGGTGGTCACTGTGA
TTGCTCATGAGCTGGCCACCAGTGGTTCGGGAACCTGGTGACCATAGAGTGGTGGAAATGACCTGTGGCTGAACG
AGGGCTTCGCCTCCTACGTGGAGTACCTGGGTGCTGACTATGCGGAGCCACCTGGAAGTGAAGACCTCATGG
TGCTGAATGATGTGTACCGCGTGTGTCAGTGGATGCACTGGCCTCCTCCACCCCGCTGTCCACACCCGCTCGG
AGATCAACACGCCGGCCAGATCAGTGAGCTGTTTGACGCCATCTCCTACAGCAAGGGCGCCTCAGTCTCAGGA
TGCTCTCCAGCTTCTGTCCGAGGACGTATTCAAGCAGGGCCTGGCGTCTACCTCCACACCTTXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXGCTGTGAACAACCGGTCCATCCAATCCCCACCACCG
TGCGGGACATCATGAACCGCTGGACCCTGCAGATGGGCTTCCCGGTCACTACGGTGGATACCAGCACGGGGACCC
TTTCCAGGAGCACTTCTCTGACCCCGATTCCAATGTTACCCGCCCTCAGAATTCAATGGATTGTGCCCAT
CACATCCATCAGAGATGGCAGACAGCAGCAGGACTACTGGCTGATAGATGTAAGAGCCAGAACGATCTCTCAG
CACATCAGGCAATGAGTGGGTCTGTGAACCTCAATGTGACGGGCTATTACCGGGTGAAGTACGACGAAGAGAA
CTGGAGGAAGATTCAAGTCAAGTGCAGAGAGACCACTCGGCCATCCCTGTCATCAATCGGGCACAGATCATTAA
TGACGCCCTTCAACCTGGCCAGTGCCATAAGGTCCCTGTCACTCTGGCGCTGAACAACACCCCTCTCTCTGATTGA
AGAGAGACAGTACATGCCCTGGGAGGCCGCCCTGAGCAGCCTGAGCTACTTCAAGCTCATGTTTGACCGCTCCGA
GGTCTATGGCCCCATGAAGAACTACCTGAAGAAGCAGGTACACCCCTCTTCATTCACTTCAGAAATAATACCAA
CAACTGGAGGGAGATCCAGAAAACCTGATGGACCAGTACAGCGAGGTTAATGCCATCAGCACCGCCTGCTCCAA
CGGAGTTCCAGAGTGTGAGGAGATGGTCTCTGGCCTTTTCAAGCAGTGGATGGAGAACCCCAATAATAACCCGAT
CCACCCCAACCTGCGGTCCACCGTCTACTGCAACGCTATCGCCAGGGCGGGGAGGAGTGGGACTTCGCCTG
GGAGCAGTTCGAAATGCCACACTGGTCAATGAGGCTGACAAGCTCCGGGCAGCCCTGGCCTGCAGCAAAGAGTT
GTGGATCCTGAACAGGTACCTGAGCTACACCCTGAACCCGGACTTAATCCGGAAGCAGGACGCCACCTCTACCAT
CATCAGCATTACCAACAACGTATTGGGCAAGGTCTGGTCTGGGACTTTGTCCAGAGCAACTGGAAGAAGCTTTT
TAACGATTATGGTGGTGGCTCGTTCTCCTTCTCCAACCTCATCCAGGCAGTGACACGACGATTCTCCACCCAGTA
TGAGCTGCAGCAGCTGGAGCAGTTCAAGAAGGACAACGAGGAAACAGGCTTCGGCTCAGGCACCCGGGCCCTGGA
GCAAGCCCTGGAGAAGACGAAAGCCAACATCAAGTGGGTGAAGGAGAACAAGGAGGTGGTGTCTCAGTGGTTCAC
AGAAAACAGCAAATAGTCCCCAGCCCTTGAAGTCAACCCGGCCCCCATGCAAGGTGCCACATGTGTCCATCCCAG
CGGCTGGTGCAGGGCCTCCATTCTGGAGCCCGAGGCACCAAGTGTCTCCCTCAAGGACAAAGTCTCCAGCCCA
CGTTCTCTCTGCCTGTGAGCCAGTCTAGTTCTCTGATGACCCAGGCTGCCTGAGCACCTCCAGCCCCCTGCCCTC
ATGCCAACCCCGCCCTAGGCCTGGCATGGCACCTGTGCGCCAGTGCCTGGGGCTGATCTCAGGGAAGCCAGCT
CCAGGGCCAGATGAGCAGAAGCTCTCGATGGACAATGAACGGCCTTGCTGGGGGCCGCCCTGTACCCTCTTTTAC
CTTTCCTAAAGACCCTAAATCTGAGGAATCAACAGGGCAGCAGATCTGTATATTTTTTTCTAAGAGAAAATGTA
AATAAAGGATTTCTAGATG

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FIGURE 4293

CCAGCGTTAGCCCGCGGCCAGGCAGCCGGGAGGAGCGGGCGCGCGCTCGGACCTCTCCCGCCCTGCTCGTTCGCTC
TCCAGCTTGGGATGGCCGGCTACCTGCGGGTCGTGCGCTCGCTCTGCAGAGCCTCAGGCTCGCGGCCGGCCTGGG
CGCCGGCGGCCCTGACAGCCCCACCTCGCAAGAGCATCCGCGGCGCCACTATGCCGACAAAAGGATCAAGGTGG
CGAAGCCCGTGGTGGAGATGGATGGTGATGAGATGACCCGTATTATCTGGCAGTTCATCAAGGAGAAGCTCATCC
TGCCCCACGTGGACATCCAGCTAAAGTATTTTGACCTCGGGCTCCCAAACCGTGACCAGACTGATGACCAGGTCA
CCATTGACTCTGCACTGGCCACCCAGAAGTACAGTGTGGCTGTCAAGTGTGCCACCATCACCCCTGATGAGGCCC
GTGTGGAAGAGTTCAAGCTGAAGAAGATGTGGAAAAGTCCCAATGGAATATCCGGAACATCCTGGGGGGGACTG
TCTTCCGGGAGCCCATCATCTGCAAAAACATCCCACGCCTAGTCCCTGGCTGGACCAAGCCCATCACCATTGGCA
GGCACGCCCCATGGCGACCAGTACAAGGCCACAGACTTTGTGGCAGACCGGGCCGGCACTTTCAAATGGTCTTCA
CCCCAAAAGATGGCAGTGGTGTCAAGGAGTGGGAAGTGTACAACCTTCCCGCAGGCGGGCTGGGCATGGGCATGT
ACAACACCGACGAGTCCATCTCAGGTTTTGCGCACAGCTGCTTCCAGTATGCCATCCAGAAGAAATGGCCGCTGT
ACATGAGCACCAAGAACACCATACTGAAAGCCTACGATGGGCGTTTTCAAGGACATCTTCCAGGAGATCTTTGACA
AGCACTATAAGACCGACTTCGACAAGAATAAGATCTGGTATGAGCACCGGCTCATTGATGACATGGTGGCTCAGG
TCCTCAAGTCTTTCGGGTGGCTTTGTGTGGGCCTGCAAGAACTATGACGGAGATGTGCAGTCAGACATCCTGGCCC
AGGGCTTTGGCTCCCTTGGCCTGATGACGTCCGTCTGGTCTGCCCTGATGGGAAGACGATTGAGGCTGAGGCCG
CTCATGGGACCGTCACCCGCCACTATCGGGAGCACCAAGGGCCGGCCCCACCAGCACCAACCCCATCGCCAGCA
TCTTTGCCTGGACACGTGGCCTGGAGCACCGGGGGAAGCTGGATGGGAACCAAGACCTCATCAGGTTTGCCGAGA
TGCTGGAGAAGGTGTGCGTGGAGACGGTGGAGAGTGGAGCCATGACCAAGGACCTGGCGGGCTGCATTACGGCC
TCAGCAATGTGAAGCTGAACGAGCACTTCTGAACACCATGGACTTCTCGACACCATCAAGAGCAACCTGGACA
GAGCCCTGGGCAGGCAGTAGGGGGAGGCGCCACCCATGGCTGCAGTGGAGGGGCCAGGGCTGAGCCGGCGGGTCC
TCCTGAGCGCGGCAGAGGGTGAGCCTCACAGCCCCCTCTCTGGAGGCCTTTCTAGGGGATGTTTTTTTATAAGCCA
GATGTTTTTAAAAGCATATGTGTGTTTTCCCTCATGGTGACGTGAGGCAGGAGCAGTGCGTTTTACCTCAGCCAG
TCAGTATGTTTTGCATACTGTAATTTATATTGCCCTTGGAACACATGGTGCCATATTTAGCTACTAAAAAGCTCT
TCACAAAAAAGGATTCCGCG

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FIGURE 4294

MAGYLRVVRS LCRASGSRPAWAPAALTAPT SQEHPRRHYADKRIKVAKPVVEMDGD
EMTRI IWQFIKEKLILPHV
DIQLKYFDLGLPNRDQTDDQVTIDSALATQKYSVAVKCATITPDEARVEEFKLKKMWKSPNGTIRN
ILGGTVFRE
PIICKNIPRLVPGWTKPITIGRHAHGDQYKATDFVADRAGTFKMVFTPKDGS
GVKEWEVYNFPAGGVGMGMYN
TD
ESISGFAHSCFYAIQKKWPLYMSTKNTILKAYDGRFKDIFQEIFDKHYKTDFDKNKI
WYEHRLIDDMVAQVLKS
SGGFVWACKNYDGDVQSDILAQGGFSLGLMTSVLVCPDGKTIEAEAAHGTVTRHYRE
HQGRPTSTNPIASIFAW
TRGLEHRGKLDGNQDLIRFAQMLEKVCVETVESGAMTKDLAGCIHGLSNVKLNEHFLNT
MDFLDTIKSNLDRALG
RQ

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FIGURE 4295

AGAAACCCCGCGGGGTCTGAGCAGCCCAGCGTGCCCATTCACGCGCCCGCGTCCCCGCAGCATGCCGCGCCCCCGC
CTGCTGGCCGCGCTGTGCGGCGCGCTGCTCTGCGCCCCAGCCTCCTCGTCGCCCTGGATATCTGTTCCAAAAAC
CCCTGCCACAACGGTGGTTTATGCGAGGAGATTTCCTCAAGAAGTGCGAGGAGATGTCTTCCCCTCGTACACCTGC
ACGTGCCTTAAGGGCTACGCGGGCAACCACTGTGAGACGAAATGTGTGAGCCACTGGGCCTGGAGAATGGGAAC
ATTGCCAACTCACAGATCGCCGCTCGTCTGTGCGTGTGACCTTCTTGGGTTTGCAGCATTGGGTCCCGGAGCTG
GCCCCCTGAACCGCGCAGGCATGGTCAATGCCTGGACACCCAGCAGCAATGACGATAACCCCTGGATCCAGGTG
AACCTGCTGCGGAGGATGTGGGTAACAGGTGTGGTGACGCAGGGTGCCAGCCGCTTGGCCAGTCATGAGTACCTG
AAGGCCCTTCAAGGTGGCTACAGCCTTAATGGACACGAATTCGATTTTCATCCATGATGTTAATAAAAAACACAAG
GAGTTTGTGGGTAACCTGGAAACAAAAACGCGGTGCATGTCAACCTGTTTGGAGCCCTGTGGAGGCTCAGTACGTG
AGATTGTACCCACAGAGCTGCCACACGGCCTGCACTCTGCGCTTTGAGCTACTGGGCTGTGAGCTGAACGGATGC
GCCAATCCCCTGGGCTGAAGAATAACAGCATCCCTGACAAGCAGATCACGGCCTCCAGCAGCTACAAGACCTGG
GGCTTGCACTCTTTCAGCTGGAACCCCTCCTATGCACGGCTGGACAAGCAGGGCAACTTCAACGCCTGGGTTGCG
GGGAGCTACGGTAACGATCAGTGGCTGCAGGTGGACCTGGGCTCCTCGAAGGAGGTGACAGGCATCATCACCCAG
GGGGCCCGTAACCTTGGCTCTGTCCAGTTTGTGGCATCCTACAAGGTTGCCTACAGTAATGACAGTGCGAACTGG
ACTGAGTACCAGGACCCAGGACTGGCAGCAGTAAGATCTTCCCTGGCAACTGGGACAACCACTCCCAACAAGAAG
AACTTGTTTGAGACGCCCATCCTGGCTCGCTATGTGCGCATCCTGCCTGTAGCCTGGCACAACCGCATCGCCCTG
CGCTGGAGCTGCTGGGCTGTTAGTGGCCACCTGCCACCCCAAGGTCTTCTGCTTTCCATGGGCCCCGCTGCCTC
TTGGCTTCTCAGCCCCCTTTAAATCACCATAGGGCTGGGGACTGGGGAAGGGGAGGGTGTTAGAGGCAGCACCAC
CACACAGTCACCCCTCCCTCCCTCTTCCCCACCCCTCCACCTCTCACGGGCCCTGCCCCAGCCCTAAGCCCCGTC
CCCTAACCCCCAGTCCTCACTGTCTGTTTCTTAGGCACTGAGGGATCTGAGTAGGTCTGGGATGGACAGGAAA
GGGCAAAGTAGGGCGTGTGGTTTCCCTGCCCCCTGTCCGGACCGCCGATCCAGGTGCGTGTGTCTCTGTCTCTCC
TAGCCCCCTCTCTCACACATCACATTCCCATGGTGGCCTCAAGAAAGGCCCGGAAGCGCCAGGCTGGAGATAACAG
CCTCTTGGCCGTCGGCCCTGCGTCGGCCCTGGGGTACCATGTGGCCACAACCTGCTGTGGCCCCCTGTCCCCAAGA
CACTTCCCCCTTGTCTCCCTGGTTGCCTCTCTTGGCCCTTGTCTGAAGCCCAGCGACACAGAAGGGGGTGGGGCG
GGTCTATGGGGAGAAAGGGAGCGAGGTGAGAGGAGGCATGGGTGGCAGGGTGGGCGTTTGGGGCCCTCTATGC
TGGCTTTTACCCCAAGAGGACACAGGCAGCTTCCAAAATATATTTATCTTCTTCACGGG

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GGCGCGCGCTCCAGAGAGCCAGCCCGCGCGCGCTCGCGGGGAAGTGCCGCCTGGTGGGGTCAAGGCGCGCTGAA
GCCACAGTGCGCCGCCGAGCCGAGGTGGCTCGAGCGCGCGCGCTGACAGCACAGCCCGCCTGAGCTGCCTCCC
GCGCTCCTCCCCGAGGAAAGGATTTTGATTTCAAAGAAAGGAAGGAAGGACAACCTCCAGCTTCCCCGTCC
CGCCCTCCCCGCTCCGAGGGCCGCGCCAGGCCATGCCCAAGAAGGCGGCGGCGGCGGCGAACCAGCAGAAGGGAC
TTTCTTGGCAGCCCGGCGACGAGGAGCGCGGACAGTGAAGTTTGTCTGTGCCCCGGTTTATGGTTCTTGAAGCCCT
CTAGGAGGGCCGAAAGCTGCAGCCCTTCCCTTGTCCCGAAGAGCCCTTCCGCTTCTCTCGCCCTCGGGCCCCACC
CGCGCCGCCCGGGCTCCCGCCGCCGCGAGCCAGTGCCTTGTGCCGCGGCGGTGGATGGCATGATGGTGCGGGGA
AGGCACCGCGGCCCTTGGCCAGCTGAAGTGCAGCGGCCGCGCGGGGCGGCGGCAGTGGCCGCGGCAGCGCGGTGGT
AGCGGGCTCCCCAGCGGCATGCCAGTGCCTCCCGGGGCGGATGGCTAGCGGCAGCGCCGGGAAGCCCACTGGCGA
GGCGGCTTCTCCGGCTCTTGCAGCGCCATCGGCGGGGCGAGCTCGCAGCCGCGGAAGAGGCTGGTATCCGTCTG
CGACCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACCTGCTGCTGCTGTGAGCGAGGCGCGGCCCGTGTCTT
CGAGGGCCCCGCTCTTGTGTGCCGGCGCCGAGTCTTCGAGCAGTGCCTGGGACACCATCATCGCGCGCACCA
GGGGCTCTCCATCCTCACCCAGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGGGACAGCCT
GGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGTCTCGGCCACGCGGCCCTATCTGGCCGCTGTGGCCAC
GCCGGGCGCCAGCCGCGCAGCCGGGCGCTGGTGGACCGCTACCGCGTGACGCGATGCCGCCACGAGGTGGAGCA
GGGTGTGCCCGTGTGTGCGGCCACGCCGCTGGCCGACATGACGCCGCGAGCTGTGTGTGGAGGTGTGCGAGGGCT
GTGCGGCAACCTCAAGTTCTGTAGCGACGCGTGCGCCCTGGCCAGTGACAAGTACAGGGACCGCTTTTCGCGGGA
GCAGTTCAAGCTGGGCGTCAAGTGCATGAGCACCGCGCGTCCGGCGCTGTGGCTGCGTGCAGAGGTGAAGGT
GGCGCCAGTGAAGCTGGCGCGCAGCCGCTGTGCGCTCTTCAGCGGGCCCCCTGGTGCAGGCAGTGAAGCGCCCTGGT
AGGCTTCGCCACCGAGCCGCGAGTTCTTGGGTGCGCGGCGAGCTGTGAGCGCCGAGGGCAAGGCGGTGCAGACCGC
CATCTGGGCGGCGCCATGAGCGTGGTGTGCGCTGCGTGTCTGACCCAGTGCCTCAGGGATCTGGCGCAGCA
CCCCGACGGGGGCGCCAAAGATGTGCGACCACAGGGAGAGGCTGAGGAACTCGGCTGCGCCGTGTCTGAAGGCTG
CACCTGTCTATCTCAGGCTTTAAGGGAGAGGTCTTCGCCCAGGACTTTACCGCCAGTGAATTCCAATTCTGTGA
TTAGCACCCCCACCCCATACCCCTTCTTCCACCCCCAGACTAAAGGAAGATACTTACTCTCTGCCCCCTCTCCATT
TATACCAAAGAAATCATAGGTGAAACCCCTACCTCCCCAACGTTAAATGCTCGAGAGGAATCTTCCACAAGGC
AGGGCCATGCACGCAACCTGCACACGCACTTGGAGGGGCCAGGTGTCTCTCCACCGCCCCCATGCAGTAGGGAC
TGGAAGATATGTATCTGCTGGTTGTGTTATCACTCCACCCCTACCCAGCCCGCTTCCGGAATTTCTCAAC
TAAATTTCAATTATGGGCGAGGAAGGAGGTACATGGGTGATCACTTTTATTTTTTGTGTTTTTGTGTTTTTAAATTAAGAA
AGGTTACCTCAGTTTTACTCCTTAGACATGGATGTAGTACATTTTTTTGTATGTCTTTTTTTTTTAAAGCAAT
CGTGTGAAATAGGAGTATACTTTGTGAGGAAAGAGATGAATTTGCCATGTGATTGCAATGGGGGGAAGCTA
CTGTGAGCGTGTGTTTTTTAATTTACACTATAGAGTGATTTTTTTTTCCCCAACGTCAAGTTTTTACCTTGCAT
GTACTGGAGTATTTATTTTATCTATTAATGTTATGTTTCTCAGAAAAAACCTCGTGGCGAATTTCTGGCCCTC
GAGGGCCAAAT

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FIGURE 4297

MASGSAGKPTGEAASPAPASAIGGASSQPRKRLVSVCDHCKGKMQLVADLLLLSSEARPVLFEGPASSGAGAESF
EQCRDTIIARTKGLSILTHDVQSQLNMGRFGEAGDSLVELGDLVVSLTECSAHAAYLAAVATPGAQPAQPGLVDR
YRVTRCRHEVEQGCAVLRATPLADMTPQLLLEVSQGLSRNLKFLTDACALASDKSRDRFSREQFKLGVKCMSTSA
SALLACVREVKVAPSELARSRCALFSGPLVQAVSALVGFATEPQFLGRAAAVSAEGKAVQTAILGGAMSVVSACV
LLTQCLRDLAQHPDGGAKMSDHRERLRNSACAVSEGCTLLSQALRERSSPRTLPPVNSNSVN

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FIGURE 4298A

GAGCTAGCGCTCAAGCAGAGCCCAGCGCGGTGCTATCGGACAGAGCCTGGCGAGCGCAAGCGGCGCGGGGAGCCA
GCGGGGCTGAGCGCGGCCAGGGTCTGAACCCAGATTTCAGACTAGCTACCACTCCGCTTGCCACGCCCCGGG
AGCTCGCGGCGCCTGGCGGTGACGACAGACGTCCGGGGCCGCTGCGCTCCTGGCCCCGAGGGCGTGACACTGT
CTCGGCTACAGACCCAGAGGGAGCACACTGCCAGGATGGGAGCTGCTGGGAGGCAGGACTTCCTCTTCAAGGCCA
TGCTGACCATCAGCTGGCTCACTCTGACCTGCTTCCCTGGGGCCACATCCACAGTGGCTGCTGGGTGCCCTGACC
AGAGCCCTGAGTTGAACCCCTGGAACCCCTGGCCATGACCAAGACCACCATGTGCATATCGGCCAGGGCAAGACAC
TGCTGCTCACCTCTTCTGCCACGGTCTATTCCATCCACATCTCAGAGGGAGGCAAGCTGGTCATTAAAGACCACG
ACGAGCCGATTGTTTTGCGAACCCGGCACATCCTGATTGACAACGGAGGAGAGCTGCATGCTGGGAGTGCCCTCT
GCCCTTTCCAGGGCAATTTACCATCATTTTGTATGGAAGGGCTGATGAAGGTATTAGCCGGATCCTTACTATG
GTCTGAAGTACATTGGGGTTGGTAAAGGAGGCGCTCTTGAGTTGCATGGACAGAAAAAGCTCTCCTGGACATTTT
TGAACAAGACCCCTTACCCAGGTGGCATGGCAGAAGGAGGCTATTTTTTTGAAAGGAGCTGGGGCCACCGTGGAG
TTATTGTTTCATGTTCATCGACCCCAAATCAGGCACAGTCATCCATTCTGACCGGTTTGACACCTATAGATCCAAGA
AAGAGAGTGAACGTCTGGTCCAGTATTTGAACGCGGTGCCCGATGGCAGGATCCTTTCTGTTGCAGTGAATGATG
AAGGTTCTCGAAATCTGGATGACATGGCCAGGAAGGCGATGACCAAATTGGGAAGCAAACACTTCTGCACCTTG
GATTTAGACACCCCTTGGAGTTTTCTAACTGTGAAAGGAAATCCATCATCTTCAGTGGAAAGACCATATTGAATATC
ATGGACATCGAGGCTCTGCTGCTGCCGGGTATTCAAATTGTTCCAGACAGAGCATGGCGAATATTTCAATGTTT
CTTTGTCCAGTGAGTGGGTTCAAGACGTGGAGTGGACGGAGTGGTTCGATCATGATAAAGTATCTCAGACTAAAG
GTGGGGAGAAAATTTAGACCTCTGGAAGCTCACCCAGGAAAAATATGCAATCGTCCCATTGATATACAGGCCA
CTACAATGGATGGAGTTAACCTCAGCACCGAGGTTGTCTACAAAAAAGGCCAGGATTATAGGTTTGCTTGCTACG
ACCGGGGCGAGCCTGCCGGAGCTACCGTGTACGGTTCCTCTGTGGGAAGCCTGTGAGGCCCAAACCTCACAGTCA
CCATTGACACCAATGTGAACAGCACCATTCTGAACCTTGGAGGATAATGTACAGTCATGGAAACCTGGAGATACCC
TGGTCATTGCCAGTACTGATTACTCCATGTACCAGGCAGAAGAGTTCAGGTGCTTCCCTGCAGATCCTGCGCCC
CCAACCAGGTCAAAGTGGCAGGGAACCAATGTACCTGCACATCGGGGAGGAGATAGACGGCGTGGACATGCGGG
CGGAGGTTGGGCTTCTGAGCCGGAACATCATAGTGATGGGGGAGATGGAGGACAAATGCTACCCCTACAGAAACC
ACATCTGCAATTTCTTTGACTTCGATACCTTTGGGGGCCACATCAAGTTTGCTCTGGGATTTAAGGCAGCACACT
TGGAGGGCACGGAGCTGAAGCATATGGGACAGCAGCTGGTGGGTGAGTACCCGATTCACTTCCACCTGGCCGGTG
ATGTAGACGAAAGGGGAGGTTATGACCCACCCACATACATCAGGGACCTCTCCATCCATCATACATTCTCTCGCT
GCGTCACAGTCCATGGCTCCAATGGCTTGTGATCAAGGACGTTGTGGGCTATAACTCTTTGGGCCACTGCTTCT
TCACGGAAGATGGGCCGGAGGAACGCAACACTTTTGACCACTGTCTTGGCCTCCTGTCAAGTCTGGAACCCCTCC
TCCCTCGGACCGTGACAGCAAGATGTGCAAGATGATCAGAGGACTCCTACCCGGGGTACATCCCCAAGCCCA
GGCAAGACTGCAATGCTGTGTCCACCTTCTGGATGGCCAATCCCAACAACAACCTCATCAACTGTGCCGCTGCAG
GATCTGAGGAAACTGGATTTTGGTTTATTTTTACCACGTACCAACGGGCCCTCCGTGGGAATGTACTCCCCAG
GTTATTGAGAGCACATTCCACTGGGAAAATTCTATAACAACCGAGCACATTCCAACCTACCGGGCTGGCATGATCA
TAGACAACGGAGTCAAAACCACCGAGGCCTCTGCCAAGGACAAGCGGCCGTTCTCTCAATCATCTCTGCCAGAT
ACAGCCCTCACCAGGACGCCGACCCGCTGAAGCCCCGGGAGCCGGCCATCATCAGACACTTCATTGCCTACAAGA
ACCAGGACCACGGGGCTGGCTGCGCGGCGGGGATGTGTGGCTGGACAGCTGCCGGTTTGCTGACAATGGCATTG
GCCTGACCCCTGGCCAGTGGTGGAACTTCCCCTATGACGACGGCTCCAAGCAAGAGATAAAGAACAGCTTGTGTTG
TTGGCGAGAGTGGCAACGTGGGGACGGAATGATGGACAATAGGATCTGGGGCCCTGGCGGCTTGGACCATAGCG
GAAGGACCCCTCCCTATAGGCCAGAATTTTCCAATTAGAGGAATTCAGTTATATGATGGCCCCATCAACATCCAAA
ACTGCACTTTCCGAAAGTTTGTGGCCCTGGAGGGCCGGCACACCAGCGCCCTGGCCTTCCGCCTGAATAATGCCT
GGCAGAGCTGCCCCCATAACAACGTGACCGGCATTGCCTTTGAGGACGTTCCGATTACTTCCAGAGTGTCTTTCG
GAGAGCCTGGGCCCTGGTTCAACCAGCTGGACATGGATGGGGATAAGACATCTGTGTTCCATGACGTGACGGCT
CCGTGTCCGAGTACCCTGGCTCCTACCTCACGAAGATGACAACCTGGCTGGTCCGGCACCCAGACTGCATCAATG
TTCCCAGCTGGAGAGGGGCCATTTGCAGTGGGTGCTATGCACAGATGTACATTCAAGCCTACAAGACCAGTAACC
TGCGAATGAAGATCATCAAGAATGACTTCCCCAGCCACCCCTTTACCTGGAGGGGGCGCTCACCAGGAGCACCC
ATTACCAGCAATACCAACCGGTTGTACCCCTGCAGAAGGGCTACACCATCCACTGGGACCAGACGGCCCCCGCG
AACTCGCCATCTGGCTCATCAACTTCAACAAGGGCGACTGGATCCGAGTGGGGCTCTGCTACCCGCGAGGCACCA
CATTCTCCATCCTCTCGGATGTTCAATCGCCTGCTGAAGCAAACGTCCAAGACGGGCGTCTTCGTGAGGACCT

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FIGURE 4298B

TGCAGATGGACAAAGTGGAGCAGAGCTACCCTGGCAGGAGCCACTACTACTGGGACGAGGACTCAGGGCTGTTGT
TCCTGAAGCTGAAAGCTCAGAACGAGAGAGAGAAGTTTGCTTCTGCTCCATGAAAGGCTGTGAGAGGATAAAGA
TTAAAGCTCTGATTCCAAAGAACGCAGGCGTCAGTGACTGCACAGCCACAGCTTACCCCAAGTTACCGAGAGGG
CTGTCTGATAGACGTGCCGATGCCCAAGAAGCTCTTTGGTTCTCAGCTGAAAACAAAGGACCATTCTTTGGAGGTGA
AGATGGAGAGTTCCAAGCAGCACTTCTTCCACCTCTGGAACGACTTCGCTTACATTGAAGTGGATGGGAAGAAGT
ACCCCAAGTTTCGGAGGATGGCATCCAGGTGGTGGTGATTGACGGGAACCAAGGGCGCGTGGTGAGCCACACGAGCT
TCAGGAACCTCATTCTGCAAGGCATACCATGGCAGCTTTTCAACTATGTGGCGACCATCCCTGACAATTCCATAG
TGCTTATGGCATCAAAGGGAAGATACGTCTCCAGAGGCCCATGGACCAGAGTGCTGGAAAAGCTTGGGGCAGACA
GGGGTCTCAAGTTGAAAGAGCAAATGGCATTCTGTTGGCTTCAAAGGCAGCTTCCGGCCCATCTGGGTGACACTGG
ACACTGAGGATCACAAGGCCAAAATCTTCCAAGTTGTGCCATCCCTGTGGTGAAGAAGAAAGATTGTGAGGAC
AGCTGCCGCCCGGTGCCACCTCGTGGTAGACTATGACGGTGACTCTTGGCAGCAGACCAGTGGGGGATGGCTGGG
TCCCCAGCCCCCTGCCAGCAGCTGCCTGGGAAGGCCGTGTTTCAGCCCTGATGGGCCAAGGGAAGGCTATCAGAG
ACCCTGGTGCTGCCACCTGCCCTACTCAAGTGTCTACCTGGAGCCCCCTGGGGCGGTGCTGGCCAATGCTGGAAA
CATTCACTTTCTGACGCTCTTGGGTGCTTCTCTCTATCTGTGCTCTTCACTGGGGGTTTGGGGACCATATC
AGGAGACCTGGGTTGTGCTGACAGCAAAGATCCACTTTGGCAGGAGCCCTGACCAGCTAGGAGGTAGTCTGGAG
GGCTGGTCATTACAGATCCCCATGGTCTTACAGCAGACAAGTGAGGGTGGTAAATGTAGGAGAAAGAGCCTTGGC
CTTAAGGAAATCTTTACTCTGTAAAGCAAGAGCCAACTCACAGGATTAGGAGCTGGGGTAGAACTGGCTATCCT
TGGGGAAGAGGCAAGCCCTGCCTCTGGCCGTGTCCACCTTTCAGGAGACTTTGAGTGGCAGGTTTGGACTTGGAC
TAGATGACTCTCAAAGGCCCTTTTAGTTCTGAGATTCCAGAAATCTGCTGCATTTACATGGTACCTGGAACCCA
ACAGTTTATGGATACTCACTGATATCCATGATGCTGGGTGCCCCAGCGCACACGGGATGGAGAGGTGAGAACTAA
TGCTTAGCTTGAGGGGTCTGCAGTCCAGTAGGGCAGGCAGTCAGGTCCATGTGCACTGCAATGCCAGGTGGAGAA
ATCACAGAGAGGTAAATGGAGGCCAGTGCCATTTAGAGGGGAGGCTCAGGAAGGCTTCTTGCTTACAGGAATG
AAGGCTGGGGGCATTTTGTGGGGGAGATGAGGCAGCCTCTGGAATGGCTCAGGGATTACGCCCTCCCTGCCGC
TGCTGCTGAAGCTGGTGACTACGGGTGCGCCCTTTGCTCACGTCTCTCTGGCCCACTCATGATGGAGAAGTGTG
GTCAGAGGGGAGCAATGGGCTTTGCTGCTTATGAGCACAGAGGAATTCAGTCCCAGGCAGCCCTGCCTCTGACT
CCAAGAGGGTGAAGTCCACAGAAGTGAGCTCTGCCTTAGGGCTCATTGCTCTTCATCCAGGGAAGTGAAC
AGGGGGCTCCAGGAGACCCTAGATGTGCTCGTACTCCCTCGCCCTGGGATTTAGAGCTGGAAATATAGAAAAT
ATCTAGCCCAAAGCCTTCATTTTAAAGATGGGGAAAGTGAGCCCCAAGATGGGAAAGAACCACACAGCTAAGG
GAGGGCTGGGGAGCCCCACCCTAGCCCTTGCTGCCACACCACATTGCCTCAACAACCGGCCCCAGAGTGCCAG
GCACTCCTGAGGTAGCTTCTGGAAATGGGGACAAGTCCCTCGAAGGAAAGGAAATGACTAGAGTAGAATGACAG
CTAGCAGATCTCTTCCCTCCTGCTCCCAGCGCACACAAACCCGCCCTCCCTTGGTGTTGGCGGTCCCTGTGGCC
TTCATTTGTTCACCTACCTGTGAGCCAGCCTGGGTGCACAGTAGCTGCAACTCCCCATTGGTGCTACCTGGCTC
TCCTGTCTCTGAGCTCTACAGGTGAGGCCAGCAGAGGGAGTAGGGCTCGCCATGTTTCTGGTGAGCCAATTTG
GCTGATCTTGGGTGTCTGAACAGCTATTGGGTCCACCCAGTCCCTTTCAGCTGCTGCTTAATGCCCTGCTCTCT
CCCTGGCCACCTTATAGAGAGGCCAAAGAGCTCCTGTAAAGAGGGAGAACTCTATCTGTGGTTTATAATCTTGCA
CGAGGCACCAGAGTCTCCCTGGGTCTTGTGATGAACTACATTTATCCCTTTCTGCCCCAACCAAACTCTTT
CCTTCAAAGAGGGCCTGCCTGGGTCCCTCCACCCAACTGCACCCATGAGACTCGGTCCAAGAGTCCATTCCCCAG
GTGGGAGCCAACCTGTCAGGGAGGTCTTTCCACCAAACATCTTTCAGCTGCTGGGAGGTGACCATAGGGCTCTGC
TTTTAAAGATATGGCTGCTTCAAAGGCCAGAGTCACAGGAAGGACTTCTTCCAGGGAGATTAGTGGTGATGGAGA
GGAGAGTTAAATGACCTCATGTCTTCTTGTCCACGGTTTGTGAGTTTCACTCTTCAATGCAAGGGTCTC
ACACTGTGAACCACTTAGGATGTGATCACTTTCAGGTGGCCAGGAATGTTGAATGTCTTTGGCTCAGTTCAATTA
AAAAAGATATCTATTTGAAAGTTCTCAGAGTTGTACATATGTTTACAGTACAGGATCTGTACATAAAAGTTTCT
TTCTAAACCATTACCAAGAGCCAATATCTAGGCATTTTCTTGGTAGCACAAATTTTCTTATTGCTTAGAAAAT
TGCTCTCCTTGTATTCTGTTTGTAAAGACTTAAGTGAGTTAGGTCTTTAAGGAAAGCAACGCTCCTCTGAAATG
CTTGTCTTTTTCTGTTGCCGAAATAGCTGGTCCCTTTTCGGGAGTTAGATGTATAGAGTGTGTTGTATGTAAACA
TTTCTGTAGGCATCACCATGAACAAAGATATATTTCTATTTATTATATGTGCACTTCAAGAAGTCACTG
TCAGAGAAATAAAGAATTGTCTTAAATGTC

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FIGURE 4299

MGAAGRQDFLFKAMLTISWLTILTCFPGATSTVAAGCPDQSPQLQPNPBGHDQDHHVHIGQGKTLTLLTSSATVYSI
HISEGGKLVIKDHDEPIVLRTRHILIDNGGELHAGSALCFQGNFTIILYGRADEGIQPDPIYGLKYIGVGKGA
LELHGQKKLSWTFNLKTLHPGGMAEGGYFFERSWGHARGVIVHVIDPKSGTVIHSDRFDITYRSKESERLVQYLN
VPDGRILSVAVNDEGSRNLDDMARKAMTKLGSKHFLHLGFRHPWSFLTIVKGNPSSSVEDHIEYHGHRGSAAARV
KLFQTEHGEYFNVSLSEWVQDVEWTEWFDHDKVSQTKGGEKISDLWKAHPGKICNRPIDIQATTMDGVNLSTEV
VYKKGQDYRFACYDRGRACRSYRVRFCLCGKPVVRPKLTVTIDTNVNSTILNLEDNVQSWKPGDTLVIASDYSMYQ
AEEFQVLPSCRSCAPNQVKVAGKPMYLIHIGEEIDGVDMAEVLGSLRNIIVMGEMEDKCYPYRNHICNFFDFDFTFG
GHIKFALGFKAHLEGTELKHMGOQLVGQYPIHFHLAGDVDERGGYDPPTYIRDLSIHHTFSRCVTVHGSNGLLI
KDVVGYNLGHCFFTEDGPEERNTFDHCLGLLVKSGTLLPSDRDSKMCKMITEDSYPGYIPKPRQDCNAVSTFWM
ANPNNNLINCAAAGSEETGFWFIFHHVPTGPSVGMYSYSEHIPLGKFYNNRAHSNYRAGMIIDNGVKTTEASA
KDKRPFLSIISARYSPHQDADPLKPREPAIRHFIAYKNQDHGAWLRGGDVWLDSCRADNGIGLTLASGGTFPY
DDGSKQEIKNSLFVGESGNVGTMMDNRIWGPGLDHSGRITLPIGQNFPIRGILYDGPINIQNCTFRKFVALEG
RHTSALAFRLNNAWQSCPHNNVTGIAFEDVPIITSRVFFGEPGPWFNQDMDGDKTSVFHDVDGSVSEYPGSYLTK
NDNWLVRHPDCINVPDWRGAICSGCYAQMYIQAYKTSNLRMKIKNDFPSHPLYLEGALTRSTHYQQYQPVVTLQ
KGYTIHWDQTAPAEALAIWLINFNKGDWIRVGLCYPRGTTFSILSDVHNRLKQTSKTGVFVRTLQMDKVEQSYPG
RSHYYWDEDSGLLFLKLKAQNEREKFAFCSMKGCEIRIKIKALIPKNAGVSDCTATAYPKFTERAVVDVPMPPKLF
GSQKTKDHFLEVKMESSKQHFFHLWNDFAFIEVDGKKYPSSSEDGIQVVVIDGNQGRVVSHTSFRNSILOGIPWQ
LFNYVATIPDNSIVLMASKGRYVSRGPWTRVLEKLGADRGLKLKEQMAFVGFKGSFRPIWVTLDTEDEHKAKIFQV
VIPVVKKKKL

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FIGURE 4300

AGTCCTGCTCTCCGCACGCCACCTTAGGCCCGCAGCCGTGCCGGGTGCTCTTCAGCATGTCTTCATCCCGGTGG
CCGAGGATTCCGACTTCCCCATCCACAACCTGCCCTACGGCGTCTTCTCGACCAGAGGCGACCCAAGACCGAGGA
TAGGTGTGGCCATTGGCGACCAGATCCTGGACCTCAGCATCATCAAGCACCTCTTTACTGGTCTGTCTCTCCA
AACACCAGGATGTCTTCAATCAGCCTACACTCAACAGCTTCATGGGCCTGGGTGACGGCTGCCTGGAAGGAGGCGA
GAGTGTTCTTGCAGAACCTTGCTGTCTGTGAGCCAAGCCAGGCTCAGAGATGACACCGAACTTCGGAAGTGTGCAT
TCATCTCCCAGGCTTCTGCCACGATGCACCTTCCAGCCACCATAGGAGACTACACAGACTTCTATTCTCTCGGC
AGCATGCTACCAACGTCGGAATCATGTTTCAGGGACAAGGAGAATGCGTTGATGCCAAATTGGCTGCACTTACCAG
TGGGCTACCATGGCCGTGCCTCCTCTGTCTGTTGGTGTCTGGCACCCCAATCCGAAGGCCCATGGGACAGATGAAAC
CTGATGACTCTAAGCCTCCCGTATATGGTGCCTGCAAGCTCTTGGACATGGAGCTGGAAATGGCTTTTTTTGTAG
GCCCTGGAAACAGATTGGGAGAGCCGATCCCCATTTCCAAGGCCCATGAGCACATTTTTGGAATGGTCCTTATGA
ACGACTGGAGTGCACGAGACATTGAGAAGTGGGAGTATGTCCCTCTCGGGCCATTCTTGGGAAGAGTTTTGGGA
CCACTGTCTCTCCGTGGGTGGTGCCCATGGATGCTCTCATGCCCTTTGCTGTGCCCAACCCGAAGCAGGACCCCA
GGCCCCCTGCCGTATCTGTGCCATGACGAGCCCTACACATTTGACATCAACCTCTCTGTAACTGAAAGGAGAAG
GAATGAGCCAGGCGGCTACCATATGCAAGTCCAATTTTAAGTACATGTACTGGACGATGCTGCAGCAGCTCACTC
ACCACTCTGTCAACGGCTGCAACCTGCGGCCGGGGGACCTCCTGGCTTCTGGGACCATCAGCGGGCCGGAGCCAG
AAACTTTCGGCTCCATGTTGGAAGTGTCTGTGGAAGGGAACGAAGCCCATAGACCTGGGGAATGGTCAGACCAGGA
AGTTTCTGCTGGACGGGGATGAAGTCATCATAACAGGGTACTGCCAGGGGGATGGTTACCGCATCGGCTTTGGCC
AGTGTGCTGGAAAAGTGTCTGCCTGCTCTCCTGCCATCATGAGATTTTCTCTGCTCTTCTGGAAACAAAGGGCTCA
AGCACCCCTTTCAACCCTGTGACTGGGGTCTCCTCGGGCTGTAGGCCTGGTCCGCCATTCAAGTACAAATAAA
GCCATTGTGCTCTGAGGCCTGC

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FIGURE 4301

MSFIPVAEDSDFPIHNLPYGVFSTRGDPRPRIGVAIGDQILDLSIIKHLFTGPNVLSKHQDVFNQPTLNSFMGLGQ
AAWKEARVFLQNLLSVSQARLRDDTELKCAFISQASATMHLPATIGDYTDFYSSRQHATNVGIMFRDKENALMP
NWLHLPVGYHGRASSVVVSGTPIRRPMGQMKPDDSKPPVYGACKLLDMELEMAFFVGPNGNRLGEP I P I S K A H E H I
FGMVLMDWSARDIQWEYVPLGPFLGKSF GTTVSPWVVPMDALMPFAVNPQDPRPLPYLCHDEPYTFDINLS
VNLKGEGMSQAATICKSNFKYMYWTMLQQLTHHSVNGCNLRPGDLLASGTISGPEPENFGSMLELSWKGTKPIDL
GNGQTRKFLLDGDEVIITGYCQGDGYRIGFGQCAGKVLPAALLPS

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FIGURE 4302

TCGACATGGCGGTTACCCTGAGTCTCTTGCTGGGCGGGCGCGTTTGCGCCGCCGTCACTCGCTGTGGGTTTCGCGA
CCCCGGGGGTGGCGGGCCAGGCCCTATTGGCCGGGAGCCGGACCCGATTCCGACTGGGAGCCGGAGGAACGGG
AGCTGCAGGAGGTGGAGAGGTACCGGCTTCTCCCCGGGCCCTCAGCTTGAAGCAGGGCCTCGTGCCCCGGCGCTC
CAGGCCGCGCCCCCTTGCGCGCGGGTGTCTGCCGCTGCTTGCGCAGCGGCCCTTGTTTCTTCTTACCCGTTGTT
AGGGGCGCAGCGTCAGGTGTTTCACTCCCCGGGACCACTGGTCCCTTATTAGTGACGTATTTTCATCATCAGTTT
AGAGAGTTCGGCATGCTTACAGGCAGTTATTGTTCTAGGTGTTAGCTTTCTGGGTGTACGGAGCAGCTCTAAGCC
GGCAACATGGCCCGGTTGCCCTTGCGATCAAAGAGAAGAGGGCTGGGCGCTCCATGATTTAGCCTGAGGCTCTTC
AAACATCCATTCTGCTTCCACGCATGGCTTCTGCCATTGGTTCTCTTCCCCCAGCACCCCTGAAACGACAGAAACA
AGCAATCCGATTCCAGAAAATTTCGGAGGCAAATGGAGGCGCCTGGTGCCCCGCCAGGACCCCTGACGTGGGAAGC
CATGGAGCAGATACGGTATTTACATGAGGAATTTCCAGAGTCCTGGTCAGTTCCCAGGTGGGCTGAAGGCTTTGA
TGTCAGCACTGATGTGATCCGAAGAGTTTTTAAAAGCAAGTTTTTACCCACATTGGAGCAGAAGCTGAAGCAGGA
TCAAAAAGTCCTTAAGAAAGCTGGGCTTGCCCACTCGCTGCAGCACCTCCGGGGCTCTGGAAATACCTCAAAGCT
GCTCCCTGCAGGCCACTCTGTATCAGGCTCTTTGCTTATGCCAGGGCATGAAGCCTCATCTAAAGACCCAAATCA
CAGCACAGCTTTGAAAGTGATAGAGTCAGACACTCACAGGACAAATACACCAAGGAGAAGGAAGGGAAGAAATAA
AGAAATCCAGGACCTGGAGGAGAGCTTTGTGCCTGTTGCTGCACCCCTAGGTCATCCAAGAGAGCTGCAGAAGTA
CTCCAGTGATTCTGAGAGCCCCAGAGGAAGTGGCAGTGGTGCGTTGCCAAGTGGTCAGAAGCTGGAGGAGTTGAA
GGCAGAGGAGCCAGATAACTTCAGCAGCAAAGTAGTGCAGAGGGGCCGAGAGTTCTTTGACAGCAACGGGAAGT
CCTGTACAGAATTTGAGTCGGGGCTTGCGTTATGGAGATGCCTCGTGAAACACAGCTGGGCAAGTATTAATGTAT
ATGGAACAGCCTGGATTTCTGCATATGGATAAGCCACCTTGGAATAGGAAGAGGTGTTGAGCCTGGACTGTGGGA
GGAAAGAGCTGCGTGGATAGATTCAAACCTTCTGTGGTAGTGCTCCAGTCTGACCTCTGTAGACCTTCAGTACT
CACTCTTCTTGCTTAGGCTCTCTGTGTGTTGAAAGCCATCCCGTGTTGCATGTGTTGTTACAATTTTCTGTGATA
CTTGCAATTTATGTTTGAGAAGAAGTGAAGGTTTGCTTCTGACCTCATTTCTTCTTGATCAGTGAACACTAA
CATTTTGGGGACAACCTTAGTCAATTGGTTTTCTTACAACAAAATAAAGTAAATGTAGCAAAAAAAAAAAAAA
AAAA

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FIGURE 4303

MEAPGAPPRTLWEAMEQIRYLHEEFPEWSVPRLAEGFDVSTDVIRRVLKSFLPTLEQKLKQDQKVLKKAGLA
HSLQHLRGSGNTSKLLPAGHSVSGSLLMPGHEASSKDPNHSTALKVIESDTHRTNTPRRRKGRNKEIQDLEESFV
PVAAPLGHPRELQKYSSDSESPRGTGSGALPSGQKLEELKAEEDNFSSKVQRGREFFDSNGNFLYRI

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FIGURE 4304

CTGAAGGCTTTGATGTCAGCACTGATGTGATCCGAAGAGTTTTACAGGCTCTTTGCTTATGCCAGGGCATGAAGC
CTCATCTAAAGACCCAAATCACAGCACAGCTTTGAAAGTGATAGAGTCAGACACTCACAGGAGAAATACACCAAG
GAGAAGGAAGGGAAGAAATAAAGAAATCCAGGACCTGGAGGAGAGCTTTGTGCCTGTTGCTGCACCCCTAGGTCA
TCCAAGAGAGCTGCAGAAGTACTCCAGTGATTCTGAGAGCCCCAGAGGAACTGGCAGTGGTGCGTTGCCAAGTGG
TCAGAAGCTGGAGGAGTTGAAGGCAGAGGAGCCAGATAACTTCAGCAGCAAAGTAGTGCAGAGGGGCCGAGAGTT
CTTTGACAGCAACGGGAACCTTCCTGTACAGAATTTGAGTCGGGGCTTGGCTTATGGAGATGCCTCGTGAAACACA
GCTGGGCAAGTATTAATGTATATGGAACAGCCTGGATTTCTGCATATGGATAAGCCACCTTGGAATAGGAAGAGG
TGTTGAGCCTGGACTGTGGGAGGAAAGAGCTGCGTGGATAGATTCAAACCTTCCTGTGGTAGTGCTCCCAGTCTGA
CCTCTGTAGACCTTCAGTACTCACTCTTCTTGCTTAGGCTCTCTGTGTGTTGAAAGCCATCCCGTGTTGCATGT

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FIGURE 4305

TCTCCCGAATTCGGCACGAGGCGGCGTCTCGAGGCGAGTTGGCGGAGCTGTGCGCGCGGCGGGGCGATGGGGGGC
TCGGGCAGTCGCCTGTCCAAGGAGCTGCTGGCCGAGTACCAGGACTTGACGTTCTTGACGAAGCAGGAGATCCTC
CTAGCCACAGGCGGTTTTGTGAGCTGCTTCCCCAGGAGCAGCGGACCGTGGAGTCGTCACTTCGGGCACAAGTG
CCCTTCGAGCAGATTCTCAGCCTTCCAGAGCTCAAGGCCAACCCCTTCAAGGAGCGAATCTGCAGGGTCTTCTCC
ACATCCCCAGCCAAAGACAGCCTTAGCTTTGAGGACTTCTGGATCTCCTCAGTGTGTTTCAGTGACACAGCCACG
CCAGACATCAAGTCCCATTATGCCTTCCGCATCTTTGACTTTGATGATGACGGAACCTTGAACAGAGAAGACCTG
AGCCGGCTGGTGAAGTGCCTCACGGGAGAGGGCGAGGACACACGGCTTAGTGCGTCTGAGATGAAGCAGCTCATC
GACAACATCCTGGAGGAGTCTGACATTGACAGGGATGGAACCATCAACCTCTCTGAGTTCCAGCACGTATCTCC
CGTTCTCCAGACTTTGCCAGCTCCTTTAAGATTGTCTGTGACAGCAGCCCCAGCGTGTGTCCTGGCACCTGTC
CAAGAACCTTTCTACTGCTGAGCTGTGGCCAAGGTCAAGCCTGTGTTGCCAGTGCGGGCCAAGCTGGCCCAGCCT
GGAGCTGGCGCTGTGCAGCCTCACCCCGGGCAGGGGCGGCCCTCGTTGTGAGGGCCTCTCCTCACTGCTGTTGTC
ATTGCTCCGTTTGTGTTTGTACTAATCAGTAATAAAGGTTTAGAAGTTTGACCCTAAAAAAAAAAAAAAAAAAAA
AAAAA

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FIGURE 4306

MGGSGSRLSKELLA EYQDLTFLTKQEILLAHRRFCCELLPQEQR TVESSLRAQVPFEQILSLPELKANPFKERICR
VFSTSPAKDSLSFEDFLDLLSVFSDTATPD IKSHYAFRIFDFDDDGTLNREDLSRLVNCLTGEGEDTRLSASEMK
QLIDNILEESDIDRDGTINLSEFQHVISRSPDFASSFKIVL

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FIGURE 4307A

GCTCTGCCCAAGCCGAGGCTGCGGGGCCGGCGCCGGGAGGACTGCGGTGCCCGCGGAGGGGCTGAGTTTGC
CAGGGCCCACTTGACCCTGTTTCCACCTCCCGCCCCCAGGTCCGGAGGCGGGGGCCCCCGGGCGACTCGGGG
GCGGACCGCGGGGCGGAGCTGCCGCCGTGAGTCCGGCCGAGCCACCTGAGCCCGAGCCGCGGGACACCGTGCCT
CCTGCTCTCCGAATGCTGCGCACCGCGATGGGCCTGAGGAGCTGGCTCGCCGCCCATGGGGCGCGCTGCCGCCT
CGGCCACCGCTGCTGCTCCTGCTGCTGCTCCTGCTGCGAGCCGCCGCCTCCGACCTGGGCGCTCAGCCCC
CGGATCAGCCTGCCTCTGGGCTCTGAAGAGCGGCCATTTCCTCAGATTGGAAGCTGAACACATCTCCAACACACA
GCCCTTCTGCTGAGCAGGGATGGCAGGACCCTGTACGTGGGTGCTCGAGAGGCCCTCTTTGCACTCAGTAGCAAC
CTCAGCTTCTGCCAGGCGGGGAGTACCAGGAGCTGCTTTGGGGTGCGAGACGCAGAGAAGAAACAGCAGTGCGAGC
TTCAAGGGCAAGGACCCACAGCGCGACTGTCAAAACTACATCAAGATCCTCCTGCCGCTCAGCGGCAGTCACCTG
TTCACCTGTGGCACAGCAGCCTTCAGCCCCATGTGTACCTACATCAACATGGAGAATTCACCTGGCAAGGGAC
GAGAAGGGGAATGTCCTCCTGGAAGATGGCAAGGGCCGTTGTCCCTTCGACCCGAATTTCAAGTCCACTGCCCTG
GTGGTTGATGGCGAGCTCTACACTGGAACAGTCAGCAGCTTCCAAGGGAATGACCCGGCCATCTCGCGGAGCCAA
AGCCTTCGCCCCACCAAGACCGAGAGCTCCCTCAACTGGCTGCAAGACCCAGCTTTTGTGGCCTCAGCCTACATT
CCTGAGAGCCTGGGCAGCTTGCAAGGCGATGATGACAAGATCTACTTTTTCTTCAGCGAGACTGGCCAGGAATTT
GAGTTCTTTGAGAACACCATTGTGTCCCGCATTTGCCCGCATCTGCAAGGGCGATGAGGGTGGAGAGCGGGTGCTA
CAGCAGCGCTGGACCTCCTTCTCAAGGCCAGCTGCTGTGCTCACGGCCCGACGATGGCTTCCCCCTTCAACGTG
CTGCAGGATGTCTTACGCTGAGCCCCAGCCCCAGGACTGGCGTGACACCCTTTTCTATGGGGTCTTCACTTCC
CAGTGGCACAGGGGAACACAGAAGGCTCTGCCGTCTGTGCTTTCACAATGAAGGATGTGCAGAGAGTCTTCAGC
GGCCTCTACAAGGAGGTGAACCGTGAGACACAGCAGATGGTACACCGTGACCCACCCGTGCCACACCCCGGCCT
GGAGCGTGATCACCAACAGTGCCCGGGAAAGGAAGATCAACTCATCCCTGCAGCTCCAGACCCGCTGCTGAAC
TTCTCAAGGACCACTTCTGATGGACGGGCAGGTCCGAAGCCGCATGCTGCTGCTGCAGCCCCAGGCTCGCTAC
CAGCGCGTGGCTGTACACCGCGTCCCTGGCCTGCACCACACCTACGATGTCTCTTCTGGGCACTGGTGACGGC
CGGCTCCACAAGGCAGTGAGCGTGGGCCCGGGGTGCACATCATGAGGAGCTGCAGATCTTCTCATCGGGACAG
CCCGTGCGAATCTGCTCCTGGACACCCACAGGGGGCTGCTGTATGCGGCCTCACACTCGGGCGTAGTCCAGGTG
CCCATGGCCAACTGCAGCCTGTACAGGAGCTGTGGGGACTGCCTCCTCGCCCGGGACCCCTACTGTGCTTGGAGC
GGCTCCAGCTGCAAGCACGTGAGCCTTACCAGCCTCAGCTGGCCACCAGGCCGTGGATCCAGGACATCGAGGGA
GCCAGCGCCAAGGACCTTTGAGCGCGTCTTCGGTTGTGTCCCCGTCTTTGTACCAACAGGGGAGAAGCCATGT
GAGCAAGTCCAGTTCCAGCCCAACACAGTGAACACTTTGGCCTGCCGCTCCTCTCCAACCTGGCGACCCGACTC
TGGCTACGCAACGGGGCCCCCGTCAATGCCTCGGCCTCCTGCCACGTGCTACCCACTGGGGACCTGCTGCTGGT
GGCACCCAACAGCTGGGGGAGTTCCAGTGCTGGTCACTAGAGGAGGGCTTCCAGCAGCTGGTAGCCAGCTACTGC
CCAGAGGTGGTGGAGGACGGGGTGGCAGACCAACAGATGAGGGTGGCAGTGTACCCGTATTATCAGCACATCG
CGTGTGAGTGACACAGCTGGTGGCAAGGCCAGCTGGGGTGCAGACAGGTCTACTGGAAGGAGTTCTTGGTGATG
TGCACGCTCTTTGTGCTGGCCGTGCTGCTCCAGTTTTATTCTTGCTCTACCGGCACCGGAACAGCATGAAAGTC
TTCTGGAAGCAGGGGGAATGTGCCAGCGTGACCCCAAGACCTGCCCTGTGGTGCTGCCCCCTGAGACCCGCCCA
CTCAACGGCCTAGGGCCCCCTAGCACCCCGCTCGATACCCGAGGGTACCAGTCCCTGTGAGACAGCCCCCGGGG
TCCCGAGTCTTCACTGAGTCAGAGAAGAGGCCACTCAGCATCCAAGACAGCTTCGTGGAGGTATCCCCAGTGTC
CCCCGGCCCCGGGTCCGCCTTGGCTCGGAGATCCGTGACTCTGTGGTGTGAGAGCTGACTTCCAGAGGACGCTGC
CCTGGCTTCAAGGGGCTGTGAATGCTCGGAGAGGGTCAACTGGACCTCCCCCTCCGCTCTGCTCTTCGTGGAACAG
ACCGTGGTGCCCGGCCCTTGGGAGCCTTGGGGCCAGCTGGCCTGCTGCTCTCCAGTCAAGTAGCGAAGCTCCTAC
CACCCAGACACCCAAACAGCCGTGGCCCCAGAGGTCTTGCCAAAATATGGGGGCTGCCTAGGTTGGTGGAACAG
TGCTCCTTATGTAACTGAGCCCTTTGTTTAAAAACAATTCCAAATGTGAAACTAGAATGAGAGGGAAGAGATA
GCATGGCATGCAGCACACACGGCTGCTCCAGTTTCATGGCCTCCCAGGGGTGCTGGGGATGCATCCAAAGTGGTTG
TCTGAGACAGAGTTGGAAACCCCTACCAACTGGCCTCTTACCTTCCACATTATCCCGCTGCCACCGGCTGCCCT
GTCTCACTGCAGATTGAGGACCAGCTTGGGCTGCGTGCGTTCTGCCCTTGCCAGTCAGCCGAGGATGTAGTTGTTG
CTGCCGTGCTCCACACCTCAGGGACAGAGGGCTAGGTTGGCACTGCGGCCCTCACCAGGTCTGGGCTCGGA
CCCAACTCCTGGACCTTTCCAGCCTGTATCAGGCTGTGGCCACACGAGAGGACAGCGCGAGCTCAGGAGAGATTT
CGTGACAATGTACGCCCTTCCCTCAGAATTGAGGGAAGAGACTGTGCGCTGCCTTCCCTCCGTTGTTGCGTGAGAA
CCCGTGTGCCCTTCCCACCATATCCACCCCTCGCTCCATCTTTGAACTCAAACACGAGGAACCTAAGTGCACCTG

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FIGURE 4307B

GTCTCTCCCCAGTCCCCAGTTCACCCTCCATCCCTCACCTTCCTCCACTCTAAGGGATATCAACACTGCCCAGC
ACAGGGGCCCTGAATTTATGTGGTTTTTATACATTTTTTAATAAGATGCACTTTATGTCATTTTTTAATAAAGTC
TGAAGAATTACTGTTT

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FIGURE 4308

MLRTAMGLRSWLAAPWGALPPRPPLLLLLLLLLLLLLLQPPPTWALSPRISLPLGSEERPFLRFEAEHISNYTALLL
SRDGRTLYVGAREALFALSSNLSFLPGGEYQELLWGADAEKKQQCSFKGKDPQRDCQNYIKILLPLSGSHLFTCG
TAAFSPMCTYINMENFTLARDEKGNVLLEDGKGRCFPDPNFKSTALVVDGELYTGTVSSFQGNDFAIRSQSLRP
TKTESSLNWLQDPAFVASAYIPESLGSLLQGDDDKIYFFFSETGQEFEFFENTIVSRIARICKGDEGGERVLQQRW
TSFLKAQLLCRPDDGFFPNVLQDVFTLSPSPQDWRDTLFYGVFTSQWHRGTTEGSAVCVFTMKDVQRVFSGLYK
EVNRETQQWYTVTHPVPTPRPGACITNSARERKINSSLQLPDRVLNFKDHFLLMDGQVRSRMLLLQPQARYQRVA
VHRVPGLHHTYDVLFLGTGDGRLHKAVSVGPRVHIIIEELQIFSSGQPVQNLLLDTHRGLLYAASHSGVVQVPMAN
CSLYRSCGDCLLARDPYCAWSGSSCKHVSLEYQQLATRPIQDIEGASAKDLCSASSVSPSFVPTGEKPCEQVQ
FQPNTVNTLACPLLSNLATRLWLRNGAPVNASASCHVLPTGDLLLVGTQQLGEFQCWSLEEGFQQLVASYCPEVV
EDGVADQTDEGGSVPVVIISTSRVSAPAGGKASWGADRSYWKFLVMCTLFVLAVLLPVLFLLYRHRNSMKVFLKQ
GECASVHPKTCPVVLPETRPLNGLGPPSTPLDHRGYQSLSDSPPGSRVFTSEKRPLSIQDSFVEVSPVCPRRR
VRLGSEIRDSVV

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FIGURE 4309A

GGTGATTGTGTTGTTACAGTGCTGCTTGCTGAAGAGGACAAAGCTGAAGATGATGTAGTGTCTTTACTTGGTATTT
TTGGGTTCCACCCTCCGTCAGTGTACAACTACTCGGAAGGTCAGTTCTGATACATTGGAGACCATTGCTCCTGGT
CATGATTGTTGTGAAACAGTGAAGGTGCAGCTCTGTGCTTCCAAAGAGGGCCTTCCCGTGTTTGTGGTGGCTGAA
GAAGACTTTTCATTTTCGTCAGGATGAAGCGTATGATGCAGCTCAATTCCTAGCAACCAGTGCTGGAAATCAGCAG
GCTTTGAACTTTACCCGTTTTCTTGACCAGTCAGGACCCCATCTGGGGATGTGAATTCCTTGATAAGAAGTTG
GTGCTGGCATTACAGGCACCTGAAGCTGCCACGGAGTGGAATGTATTGGGGACAGATCAGAGTTTGCATGATGCT
GGCCCGCGAGAGACATTTGATGCATTTTGCTGTGCGGCTGGGACTGCTGAGGTTGACGTGGTTTCTGTTGCAGAAG
CCAGGTGGCCGCGAGCTCTCAGTATCCACAACCAGGAAGGGCGACGCCTGTGAGCTTGGCCTTGGAGCGAGGCT
ATCACAAGCTGCACCAGCTTCTAACCGAGGAGAATGCTGGAGAACCAGACTCCTGGAGCAGTTTATCCTATGAAA
TACCGTATGGAGACTGTTCTGTGAGGCATCATCGAGAGTTGGACATCTATACATTAACCTCTGAGTCTGATTAC
ATCATGAACACCCATTTCTTGGAGACGGTTGCACTGGACCAATTTTTAACTTATGAACATCCAACAGCAACTAA
TGAAACAAACCTCAAGCAGATGGACAGTCTTATGCCCTTAATGATGACAGCACAGGATCCTTCCAGTGCCCCAG
AGACAGATGGCCAGTTTCTTCCCTGTGCACCGGAGGCCACGGACCCTCAGCGACTTTCTTCTTCTGAAGAGACTG
AGAGCACTCAGTGCTGCCAGGGAGCCCTGTTGCACAGACTGAAAGTCCCTGTGATTTGTCAAGCATAGTTGAGG
AGGAGAATACAGACCGTTCTGTAGGAAGAAAAATAAAGGCGTGGAAGAAAAGGGGAAGAGGTGGAGCCAGCAC
CTATTGTGGAAGTCTGGAAGTGTATCTGATCAAGACAGCTGCCTTCAGAGCTTGCCTGATTGTGGAGTAAAGGGCA
CGGAAGGCCTTTCTGCTGTGGAACAGAAATGAAGAACTGGAACAAAATCTTCTGGAATGCCACAGACCAGG
AGTCCCTGAGCAGTGAGATGCTGTGCTTCAGAGAGACTTGGTCATGGAGCCAGGCACAGCCAGTATTCTCTGT
GAGGTGAAGTGGGAGGCATTTCAACAACAAATGTAGTACCCAGACACTGCAGGGGAAATGGAACATGGGCTCA
TGAACCCAGATGCCACTGTTTGAAGAATGTGCTTCAGGGAGGGGAAAGTACAAAGGAAAGATTTGAGAAGTCTA
ATATTGGCACAGCTGGAGCCTCTGACGTGCAGCTCACAAGTAAGCCTGTGGATAAAATCAGTGTTCAAACTGTG
CCCCGTGCTGCCAGTTCCCTGGATGGTAACAAACCTGCTGAGTCTTCACTTGCATTTAGTAATGAAGAAACCTCCA
CTGAAAAAACAGCAGAAACGGAAACTTCACGAAGTCGTGAGGAGAGTGCTGATGCTCCAGTAGATCAGAATTCTG
TGGTGATTCCAGCTGCTGCAAAAGACAAGATTTAGATGGATTAGAACCTTATACTCTCTTAGCAGCAGGCATAG
GTGAGGCAATGTACCCCTCAGATTTAGCCCTTCTTGGGCTGGAAGAAGATGTAATGCCACACCAGAAGTCAAGAA
CAAATTCATCTCATGCTCAAAAGCCAAAAGGGCAAATCCTCACCCATTTGTTCTACAAGTGGAGACGATAAACTTT
GTGCAGACTCTGCATGTCAACAGAACACAGTGAAGTCTAGTGGCGATTTGGTTGCAAACTGTGTGATAACATAG
TTAGCGAGTCCGAAAGCACCACAGCAAGGCAACCCAGCTCACAAGATCCACCCGATGCCTCCCACTGTGAAGACC
CACAGGCTCATAAGTCACTCTGACCCGTGAAGGGATACCCAGGAACGTGCGGATTTTTGTCTTTTCAAAGTGG
TGGATAACAAAGGCCAACGAAAAGATGTGAACTAGATAAACCTTTAACAATATGCTTGAGGTGGTTTACATC
CACATCCAGTTGTCCCTAAAATGGAGAAAGAACTGGTGCCAGACCAGGCAGTAATATCAGACAGTACTTTCTCTC
TGGCAAACAGTCCAGGCAGTGAATCAGTAACCAAGGATGACGCACTTTCTTTTGTCCCCTCCCAGAAAGAAAAGG
GAACAGCAACTCCTGAACTACATACAGCTACAGATTATAGAGATGGCCAGATGGAAATTCGAATGAGCCTGATA
CGCGGCCACTAGAAGACAGGGCAGTAGGCCTGTCCACATCCTCCACTGCTGCAGAGCTTACGACGGGATGGGGA
ATACCAGTCTCACAGGACTTGGTGGAGAGCATGAGGGTCCCGCCCTCCAGCAATCCAGAAAGCTCTGAATATCA
AGGGGAACACTGACTCTTCCCTGCAAAGTGTGGTAAGGCCACTTTGGCTTTAGATTAGTTTTGAAGTGAAGAAG
GAAAACCTTCTGGTGGTTTTCAGAAAGCTCTGCAGCTCAGGAACAAGATAAGGATAAAGCGGTGACCTGTTCTCTA
TTAAGGAAAATGCTCTCTCTTTCAGGAACCTTTCAGGAAGAGCAGAGAACACCACCTCCTGGACAAGATACTCAAC
AATTTTCATGAAAAATCAATCTCAGCTGACTGTGCCAAGGACAAAAGCACTTCAGCTAAGTAATTCACCGGTGCAT
CCTCTGCCTTTCTTAAGGCAGAACTGAACATAACAAGGAAGTGGCCCCACAAGTCTCACTGCTGACTCAAGGTG
GGGCTGCCAGAGCCTGGTGCCACCAGGAGCAAGTCTGGCCACAGAGTCAAGGCAGGAAGCCTTGGGGGCAGAGC
ACAACAGCTCCGCTCTGTTGCCATGTCTGTTGCCAGATGGGTCTGATGGGTCCGATGCTCTTAAGTGCAGTCAGC
CTTCTCTCTGGATGTTGGAGTGAAGAACACTCAATCCAGGGAAAAACTAGTGCTGTGAGGTGAGTGGAGATG
TGACGGTGGATGTTACAGGGGTTAATGCTCTACAAGGTATGGCTGAGCCCAGAAAGAGAGAATATATCACACAACA
CCCAAGACATCCTGATTCCAAACGTCTTGTGAGCCAAGAGAAGATGCCGTTCTAGGTTTGGCAGTGGCTCTAC
AGGACAAAGCTGTGACTGACCCACAGGGAGTTGGAACCCAGAGATGATACCTCTTGAATGGGAGAAAGGGAAGC
TGGAGGGAGCAGACCACAGCTGTACCATGGGTGACGCTGAGGAAGCCCAATAGACGATGAAGCACATCCTGTCC
TACTGCAGCCTGTTGCCAAGGAGCTCCCCACAGACATGGAGCTCTCAGCCCATGATGATGGGGCCCCAGCTGGT

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FIGURE 4309B

TGAGGGAAGTCATGCGAGCCCCGCCCTTCAGGCAGGGAAAGGAGCACTCCCTCTCTACCTTGCAATGGTCTCTGCCC
AGGACGCACCTCTGCCTAAGGGGGCAGACTTGATAGAGGAGGCTGCCAGCCGTATAGTGGATGCTGTCATCGAAC
AAGTCAAGGCCGCTGGAGCACTGCTTACTGAGGGGGAGGCCTGTACATGTCACTGTCCAGCCCTGAGTTGGGTC
CTCTCACTAAAGGACTAGAGAGTGCTTTTACAGAAAAAGTGAGTACTTTCCACCTGGGGAGAGCCTACCAATGG
GCAGTACTCCTGAGGAAGCCACGGGGAGCCTTGCAAGGATGTTTTGCTGGAAGGGAGGAGCCAGAGAAGATCATTT
TACCTGTCCAGGGGCCTGAGCCAGCAGCAGAAATGCCAGACGTGAAAGCTGAAGATGAAGTGGATTTTAGAGCAA
GTTCAATTTCTGAAGAAGTGGCTGTAGGGAGCATAGCTGCTACACTGAAGATGAAGCAAGGCCCAATGACCCAGG
CGATAAACCGAGAAAACCTGGTGTACAATAGAGCCATGCCCTGATGCAGCATCTCTTCTGGCTTCCAAGCAGAGCC
CAGAATGTGAGAACTTCTGGATGTTGGACTGGGCAGAGAGTGTACCTCAAAACAAGGTGTACTTAAAAGAGAAT
CTGGGAGTGATTCTGACCTCTTCACTCACCCAGTGATGACATGGACAGCATCATCTTCCCAAAGCCAGAGGAAG
AGCATTGGCCGTGTATATCACCGGATCCAGTTTCATCCACCGATGACACGGCTTCACTGGACCGACATTCTTCTC
ATGGCAGTGATGTGTCTCTCTCCAGATTTTAAAGCCAAACAGGTCAAGAGATCGGCAAAGCCTTGATGGATTCT
ACAGCCATGGGATGGGAGCTGAGGGTCGAGAAAGTGAGAGTGAGCCTGCTGACCCAGGCGACGTGGAGGAGGAGG
AGATGGACAGTATCACTGAAGTGCCTGCAAACTGCTCTGTCTAAGGAGCTCCATGCGCTCTCTTTCTCCCTTCC
GGAGGCACAGCTGGGGGCCCTGGGAAAAATGCAGCCAGCGATGCAGAAATGAACCACCGGAGTATGAGCTGGTGCC
CCTCTGGTGTGCAGTACTCTGCTGGCCTGAGTGCTGACTTTAATTACAGAAGTTTCAGTCTAGAAGGCTTGACAG
GAGGAGCTGGTGTGCGAAACAAGCCATCCTCATCTCTAGAAGTAAGCTCTGCAAATGCCGAAGAGCTCAGACACC
CATTCACTGGTGAGGAACGGGTTGACTCTTTGGTGTCACTTTCAGAAGAGGATCTGGAGTCAGACCAGAGAGAAC
ATAGGATGTTTGATCAGCAGATATGTCACAGATCTAAGCAGCAGGGATTTAATTACTGTACATCAGCCATTTCT
CTCCATTGACAAAATCCATCTCATTAAATGACAATCAGCCATCCTGGATTGGACAATTCACGGCCCTTCCACAGTA
CCTTCCACAATACCAGTGCTAATCTGACTGAGAGTATAACAGAAGAGAACTATAATTTCTGCCACATAGCCCCCT
CCAAGAAAGATTCTGAATGGAAGAGTGAACAAAAGTCAGTCGTACATTCACTACATCAAGAATAAAATGTCTA
GCAGCAAGAAGAGCGAAAAGGAAAAAGATAAGATTAAGGAGAAGGAGAAAGATTCTAAAGACAAGGAGA
AAGATAAGAAGACTGTCAACGGGCACACTTTCAGTTCCATTCTCTGTTGTGGGTCCCATCAGCTGTAGCCAGTGTA
TGAAGCCCTTCACCAACAAAGATGCCTATACTTGTGCAAATTGCAGTGCTTTTGTCCACAAAGGCTGCCGAGAAA
GTCTAGCCTCCTGTGCAAAGGTCAAAATGAAGCAGCCCAAAGGGAGCCTTCAGGCACATGACACATCATCACTGC
CCACGGTCATTATGAGAAACAAGCCCTCACAGCCCAAGGAGCGTCTCGGTCCGCAGTCCTCCTGGTGGATGAAA
CCGCTACCACCCCAATATTTGCCAATAGACGATCCCAGCAGAGTGCTCTCGCTCTCCAAAAGTGTCTCCATACAGA
ACATTACTGGAGTTGGCAATGATGAGAACATGTCAAACACCTGGAAATTCCTGTCTCATTCAACAGACTCACTAA
ATAAAATCAGCAAGGTCAATGAGTCAACAGAATCACTTACTGATGAGGGAGTAGGTACAGACATGAATGAAGGAC
AACTACTGGGAGACTTTGAGATTGAGTCCAAACAGCTGGAAGCAGAGTCTTGAGTCCGGATAATAGACAGCAAGT
TTCTAAAACAGCAAAAGAAAGATGTGGTCAAAACGGCAAGAAGTAATATATGAGTTGATGCAGACAGAGTTTCATC
ATGTCCGCACTCTCAAGATCATGAGTGGTGTGTACAGCCAGGGGATGATGGCGGATCTGCTTTTTTGAGCAGCAGA
TGGTAGAAAAGCTGTTCCCTGTTTGGATGAGCTGATCAGTATCCATAGCCAATTCTTCCAGAGGATTCTGGAGC
GGAAGAAGGAGTCTCTGGTGGATAAAAGTGAAAAGAACTTTCTCATCAAGAGGATAGGGGATGTGCTTGTAATC
AGTTTTCAGGTGAGAAATGCAGAACGTTTAAAGAAGACATATGGCAAGTTTTGTGGGCAACATAACAGTCTGTAA
ACTACTTCAAAGACCTTTATGCCAAGGATAAGCGTTTTCAAGCCTTTGTAAAGAAGAAGATGAGCAGTTCAAGTTG
TTAGAAGGCTTGGAATTCAGAGTGCATATTGCTTGTAATCAGCGGATTACCAAGTACCCAGTTTTATTCCAAA
GAATATTGCAGTGTACCAAAGACAATGAAGTGAGCAGGAAGATCTAGCACAGTCCTTGAGCCTGGTGAAGGATG
TGATTGGAGCTGTAGACAGCAAAGTGGAAGTTATGAAAAGAAAGTGCGTCTCAATGAGATTTATACAAAGACAG
ATAGCAAGTCAATCATGAGGATGAAGAGTGGTCAGATGTTTGCCAAGGAAGATTTGAAACGGAAGAAGCTTGTA
GTGATGGGAGTGTGTTTCTGAAGAATGCAGCAGGAAGGTTGAAAGAGGTTCAAGCAGTTCTTCTCACTGACATTT
TAGTTTTCTTCAAGAAAAAGACCAGAAGTACATCTTTGCATCATTGGACCAGAAGTCAACAGTGATCTCTTTAA
AGAAGCTGATTGTGAGAGAAGTGGCACATGAGGAGAAAGGTTTATTCTGATCAGCATGGGGATGACAGATCCAG
AGATGGTAGAAGTCCATGCCAGCTCCAAAGAGGAACGAAACAGCTGGATTCAAGATCATTCAAGACACAATCAACA
CCCTGAACAGAGATGAAGATGAAGGAATTCCTAGTGAGAATGAGGAAGAAAAGAAAATGTTGGACACCAGAGCCC
GAGAATTAAGAACAACCTTACCAGAAGGACCAAAAAATCCTACTCTTGTGGAAAGAGAAGGAGATGATTTTCC
GGACATGGCTGAGTGCAGCACCCCTCTCCAGAGGATTGCTCCCCAACACATAGCCCTAGAGTTCTCTCCGCT

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FIGURE 4309C

CCAACACAGAAGAGGCTCTCAAAGGAGGACCTTTAATGAAAAGTGCAATAAATGAGGTGGAGATCCTTCAGGGTT
TGGTGAGTGGAAATCTGGGAGGCACACTTGGGCCGACTGTCAGCAGCCCCATTGAGCAAGATGTGGTCGGTCCCG
TTTCCCTGCCCGGAGAGCAGAGACCTTTGGAGGATTTGACAGCCATCAGATGAATGCTTCAAAAGGAGGCGAGA
AGGAAGAGGGAGATGATGGCCAAGATCTTAGGAGAACGGAATCAGATAGTGGCCTAAAAAAGGGTGGAAATGCTA
ACCTGGTATTTATGCTTAAAAGAAACAGTGAGCAGGTTGTCCAGAGCGTTGTTTCATCTCTACGAGCTCCTCAGCG
CTCTGCAGGGTGTGGTGTGCAGCAGGACAGCTACATTGAGGACCAGAAACTGGTGCTGAGCGAGAGGGCGCTCA
CTCGCAGCTTGTCCCGCCCGAGCTCCCTCATTGAGCAGGAGAAGCAGCGCAGCCTGGAGAAGCAGCGCCAGGACC
TGGCCAACCTGCAGAAGCAGCAGGCCCCAGTACCTCGAGGAGAAGCGCAGGCGCGAGCGTGAGTGGGAAGCTCGTG
AGAGGGAGCTGCGGGAGCGGGAGGCCCTCCTGGCCCCAGCGCGAGGAGGAGGTGCAGCAGGGGCAGCAGGACCTGG
AAAAGGAGCGGGAGGAGCTCCAGCAGAAGAAGGGCACATACCAGTATGACCTGGAGCGACTGCGTGCTGCCCAGA
AACAGCTTGAGAGGGGAACAGGAGCAGCTGCGCCGGGAGGCAGAGCGGCTCAGCCAGCGGCAGACAGAACGGGACC
TGTGTGAGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCTTGAGGAGCCCCCT
CGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTTCACTGTCCCCAAAAAGGAACAGCA
TCTCTCGGACACACAAAGATAAGGGGCCCTTTTACATACTGAGTTCAACCAGCCAGACAAACAAAGGACCAGAAG
GGCAGAGCCAGGCCCTGCGTCCACCTCTGCCTCTACCCGCTGTTTGGGTAAACAAAGCCAAAGGAAAAGAAGG
AGAAAAAAGAAAGAACAAAACAGCCGCTCTCAGCCCGGTGATGGTCCCGCGTCAGAAGTATCAGCAGAGGGTG
AAGAGATCTTCTGCTGACCTCTTCTCTCTGCTGAGGCAGCTGCCTCCTGATCCTGGCCAGCCACCTCTCCTG
CTGTCCCCGCGTGCACAAGTCTCTTACACTGGACGCCCCACTGCTCCTCAGCGTCCAGTCTCCTGGGCGGCCCA
GGTCTGGACAATAAGCAACAGATGATATTGAGTGTCGGGTGGGGAAGGAGGCCAGACTCTGCTTCGGCCATGA
TTTGTGACTGCCCAGGACTCTCAGGTTGGGCTGGCCCTACTCAGGATTACACTGAAAGTAATGGCCTCGTAAGTA
CAGGTGATGGTTTTGGACACGTCAGGAATTCCTAAAGGCTGAAAGAGTGTATCCAAGTAAGGTCTGAACCTCCGA
ATGCCTTTTATTTGGGGGAACACAAAACCAAACAGCAGATGTTTTGGACTTGATCTGTGTACGTACATGGGGACC
TGTCTGCATATACACACGGGGAATGCCAGAAGAAGGCCAGTCTGCACCAGGCGTCTGGTCAACTTAGCACAAGG
GCAGTGCCTGGACGGACCCGGAGCCCCCGCATATCAGCAGTTCACCCAGTACTCCTCAGAGACTGGTTTCCCTCT
AAACCCATCCCGGGCACATACCACCCGTGTTTTGCATGTATTTCTCATTTTATTTTAGGGATGACAAACATTTGT
GAAACAGTGAGAGAAGGCTTGATGTGTATAAAAGACGTGATGTGCACCACCTCGATCTCGGTGTTTCAGGCACT
AAAGCAACAAAACAACCCATAGTATCTCATTCTGTATCAGATCCAGAAGAAATATCCTGGTTTTCCAGCATGTT
TACCCACATGTTTTGGCCATGGATAAAGTGAAGAGGCCTACTCACCATTATCCCTGCAGCGTGACACCTTTTGAT
TGCTACTGACCACTCAGAAGGGGCCACGGCCTCCTGGCTGTGTTTCTGAGCCCCGTCGTGCCTCTCCAGACAG
CAGCTGTCTGGCCCTTGCTGGGTGAGGGCACACCACTGCCAGGGGTGAGCCTCGCACCAGGCCAGGCAGAAGCT
GTGCTCTGAAGCTAGGACAGCTGGCTGAGAAGTGGGTTCAGGCGAAGGGTGAAGCCATGTGTAGCAGTTTCTGCC
AGTGCAGATCTGGAGAGGAGCTGGCCCGGAAGGCGTGGTTGTGAAAGCGCCCTTCTTATGTTAGGAGGCCCTGGC
AAAATTGGATTTCTTCAAAAATACATGTAAAGGTCTGTTGTTGAATTGTAATCTGCCCCTGGAAGCAGATACAGA
TGGCTGCCTGCTGCTCGGCTTTGCTTTTGTCTTTTCCACCGTGTTTTTTCATCTTTGTTCACTTGAGGCTTTCCCCA
GCTGGTGTGTGCAGGACAGTTTATGGTAATGTTGCCCTCTGAGGCCCGTACACCAGAAGGGAGGCCCTGGAAAA
TTTTGTGCTTCCAACGTGGCCTTCAATTCTTGTCTTTTTTGGCCCTCGGAAGCATGGGGCTTTTGAGCACACTTAA
AAAAAGAAAA

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FIGURE 4310

GAAAAACAAAAGAATCTTTGTTTTACCCCGAAAGAGAGGCGAGAGGCAGAAAGTCTTCTTCTGCTTTTTGCATCT
CTAAGAGGCTGAAAAAGAGAATGGAAGTGCTGGGGCATTGTTGGCCAGGGCAGTAATGGATATTTGGAGTTGGCAC
TTCCCTCAGCTAGAGGAGTCTCAGTGTGTCTGAGAAAATGGCAGTCAGCCATCCAGGATTTTAGGAGCAACGCCA
CTGCTCTGTGCCACATCAGAAATCAGGCATGGCCCCAACCTGAAGGAACCTGTAGCTTAATGGGGAAGCACACCA
AGAATAAAAGAGCCTCCAGAACATGTGGTGCTGTGGTCCTGAGACAGCAGGAAATGGCTCTCAGGCCAGAGTTG
CTGGAAGAACCCATGTGGCAGGATCGGTGGGAGGCAGTTACAGAGGGAAACGCCCATCCCAGCAACTAGGGGAGG
CCGCCACTCCTCTCGTGGATGGATGATATTCTTGCTTGGGGATGTTGAGACAGCTGCACTCTGCATAGTTCCTGA
TTTGCTCTCTACTGCTGATGAAAAACCTCTCTTTCTCTATAGCTGCTGCTTATATTGGAAGGCTTTTGGTTATT
CAGCACACTCACTCCTGAGCTTATTTTCAGTGATATTCTTGTTATTTTCGAAACATGGATGCTTGTGGCAGATGG
AGAGCCTGGGTGTACACAGATCTGCCTGTGTTTTGAAATGCATACCATGTTGCCGTTTGTGATTGATTGATCT
TGGACCACGAAAGAAAATTATACTGACAGCTTCCAGGGTAGGGGGCAGTTGTAGCTTTCTGCAGATGTTGCCAAA
TATATTGGGGGTGGGGAGCAGCAAATGCCATGTGTTGCTTTTTATGACATAAGGAGGGATTCCACCCCATCCCA
ATAAAATCGGTGCTTTGACAAAGGAGGGTTCAGGCAGCTAAGAGAACCCAGAGTAGATGATCCTCTTTATCTC
TGGTTTAACCTGTGACTAGGATTCTTGGTGTAAGCTCGGCTTTTCCACTTATCCTCTAACCAGGACAGGCTTCTA
TAATCTCTTTGCCTTAAAATAATTATCTGCATCCCTGTGTAGAGCAATCTTAAGCAGCTCTCCTTGTTCCTCAG
GGAATGGGAATTCTTTTCTAAGTCGCCCCATCAAAGGTACTATTGGTTTTTTACAACGCCGGCGTTTGTGTATGT
AGTAAAAGTATTAACAGCATTAAAGGCGATATTTTAAACATGTTTATAGATACTACTTGGGGGAGGGCAGCTAAT
GAAACCTTCAAGCTCTATGCAGTCCACAGACGTGAGCTCTGTAGAGTTCGCAGAGGTGGGTAAGTACCCAGCCAG
CACACCCAGTTGAATTCAGCCAGGATTTATTGAGTTGGCATCACAGACGCTGACAGCCTCCAAGTGAACACCTT
CTCTTGAATATGTACAGGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCTGAGG
AGCCCCCTCGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTAGTGTCCCCAAAAA
GGAACAGCATCTCTCGGACACACAAAGATAAGGGGCCTTTTCACATACTGAGTTCAACCAGCCAGACAAACAAAG
GACCAGAAGGGCAGAGCCAGGCCCTGCGTCCACCTCTGCCTCTACCCGCCTGTTTGGGTTAACAAAGCCAAAGG
AAAAGAAGG

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FIGURE 4311A

TCTGTTAAATGTTCCGAAGCCACTGCCAAAACAACTGTGGGAGACCAAGGAGATTTCAGTCCCTGTCAGGACGCCC
TCGATCCTGTGATGTTGGAGGTGGCAATGCTTTTCCACATAATGGTCAAAACCTAGGCCTCTCACCCCTTCTTGGG
GACCTTGAACACTGGAGGGTCAATTGCCAGATCTAACCAACCTCCACTACTCGACACCCCTGCCAGCCTCCCTGGA
CACCACCGACCACCACTTTGGCAGTATGAGTGTGGGAATAGTGTGAACAACATCCCAGCTGCTATGACCCACCT
GGGTATAAGAAGCTCCTCTGGTCTCCAGAGTTCTCGGAGTAACCCCTCCATCCAAGCCACGCTCAATAAGACTGT
GCTTTCCCTCTTCTTAAATAACCACCCACAGACATCTGTTCCCAACGCATCTGCTCTTCAACCCCTTCGCTCCGTCT
GTTTTCCCTTAGCAACCCATCTCTTTCCACCACAAACCTGAGCGGCCCGTCTCGGCCTCGGCAGCCTCCCGTCAG
CCCTCTCACGCTTTCTCTGGCCCTGAAGCACATCAAGGTTTTCAGCAGACAGCTGTCTTCAACCAGCCCACTGGC
CCCATATCTTACCTCCCAGATGGTGTCTCAGACCGAAGCCAACTTTTCTTTCTGCCCACAGAAGCTCAAGCCCA
GGTGTGCGCGCCACCCCTTACCCTGCACCCCAAGGAGCTCACCCAGCCCTCTGTCAGCAGCCCCGCGCCCTGA
GGCCCTGCCCAGCAGCCCCAGGCAGCCTCCTCACTGCCACAGTCAGACTTTTCAGCTTCTCCCGGCCAGGGCTC
ATCTTTGACCAACTTCTTCCCAGATGTGGGTTTTGACCAGCAGTCCATGAGGCCAGGCCCTGCCTTTTCTCAACA
GGTGCTCTGGTGAACAAGGTTCCCGAGAAGTGCAGGACTCTTTTTCATTTGAGACCAAGCCGTTATTCAACTG
CGGGAGTCTCCCGAACACCATCCTGCCAGACTCCAGCACCAGCCTGTTCAAAGACCTCAACAGTGCCTGGCAGG
CCTGCTGAGGTCAGCCTGAACGTGGACACTCCATTTCCACTGGAAGAGGAGCTGCAGATTGAACCCCTGAGCCT
GGACGGACTCAACATGTAAAGTGAAGTCCAGCATGGGCTGCTGGACCCCTCTGTTGAAGAGACGTTTCGAGCTGA
CAGACTGTGAACAGAAGGCAGTGAACAGAAGAATGTTTTCTGCAACAGCCAAAATAGAATGGAATAGAATGAA
GCCAGCTGATACACCGGGCTTTCTGTTATCTTGACATAGAAGGAAGCAATGCCACGGCTCCAGGGTTTCAGATGAG
ATCCCATCTCAGACACTGTGGCTTCTTCCAGATCACACAGCTTTGTACTGCCTCTCCCGCCTGTGGCCAAAGTCG
TGTTGCAGCAGGCAGGCTGCTTGGAGCTTCCCATGAAGTGAAGGCTCACCTCCACTGCATCTTTTTACTGGCCA
TCCAGTCAGCCGATGTGTAAGAGTAGGAAATACTGTGTCACTGGAGGCTCCGTAGCATTGTGTAGTGTGCTCAG
AACCCTGATCTCCGTCCGCACCGAAGGCGGGCCCGAGTGGGAGGCTCGGCCTGGGGCGGGCCACCGGAGAGG
GCACCTCGATGCCTGCTCTGACCTGACCCAGAGGGCGAGGCTCCAGCGGGGGACATTCCCAGGCTGAGTGGAC
CCCACGGCTCTCTCCACGCCTGGATTACGACATGAAGTTTTTACCACAAGCCCGAGGGCAGGCTTGAGTTAGGC
AGACTGAAGGCTAATTTTCAATTTCTCCAGCTGGTTTCTGCTGCTTCAGAAAAGTACACCTTTTCTTATGGAC
CAGAGGAAGAGGAAGACCAATTTATCAGTCACTGAAAAGAGTCCCTGGCACTGATGAGCCTGAAGAGAAGTGTG
CTCTCTCTCGGGGCTGGGAAGGAAGACAGGGACTGCAGGTGTCTCATACTCAGTGGCCTCCAGACAACTCCA
GACAAGCACAGACCTCCCCACTAAGAGCAGCCAGAGGGAGCTGGTGAGGCCCTAACCCACCCACCGAGCAACTG
AGCTTCCCCATCCCTCCCCAGAGCTGTGTCTGTGGGCTGGGAGTCTAATGTCACCCCTAGACCGTAAGCTC
CTTGAGGGCAGGGACAGTGCCTTATCATTGTTGAACCCGTAGCACCTAACACGTGCGTGGCAGCACAGTCGTGTG
CTGGAGTGAGTGTGCAAGACCGTGCCTGCAGCGCATGATGAATGAGTGCCTCCGCCATGCCGTAAGGCAGGCTC
ACCTGTAGCTATCCCTTCCCTGCCAGATCTTCTCAGAGCTTTAGCTTTTCTAGCACTCGTGCCTATGGTGAAGC
ATGCACTTTAATATGCTTTTAACACTAGGTGACCAAATCACAGTGAAGCCGGGCACTGCATTCTCTTGGGCTGT
GCTCCACGCGGGTGGGTGGGAGCTGTCTTCTGAGTACATCCGGAAGGGCTGAGCAGGTGAGTGCCCTGAGCATCC
TGGCTGGGCCCCACCCAGGAAGATCTTCTTCTCAGATCCACGTTTGGCTCTAAATTGCTTCAAGTAGAGATTCA
TTCTTTGAGGTTGAAAAAATAGTTTATAGTAAACGAAGGCCTAATTCATGGAAGCATCATTAGTCATCAATACC
TTCTCATAAAAATAGATGGGCCAGATTTCCACCACCGCCTGCCTCCTCTAACTTGGGTGATGCCAGTAGGTTTGAA
GGGGGCAGAGCATTGCAGGGGGAGGGGGGGGTCTAGGCTGTGAGAGGACAGGGTGGAGAGGAGGAGAACCCTGAA
GGAGAGACGGAAGATGCCAGGACCTTTGCTTGGACAGCCATTGCCCTTCCAGGAGACCCCTGGAGTGTACTGAGGG
TTGCTGGACTGTTCCACCCAGAGGAGCAAGGCTGTACAATGAGGGTCTGAATCTGGCACACCTGTCCCTTATGTA
AAAGGAGTCGTGGTCAACAAGACCCCTGGGCTGGTTAGCCTCTCCCGACCTCATTCCATTTCTATCTTCTGACCTTG
CCTCTCATCTTTAAATAACCCCTCATGGGGTGCCCTCCACCTTCTCTGGAATCCAAGTATTCCTGTTTCACAT
TTGCCCCAAATCTTTGCTGTGGAATTGGGAAATCAAACCAGAGTCCTCCTCGCCTGATTTCCAGCTCAGGAAGGG
CCTGCTGGCCTGCCCTGTTCCAGTTACACTTTTTCAGATCCCTTTGTGCTCAAGATCTCAGAGGGGGTGGCTTTTT
GTTAAAGAGCCTTCAGTCGCAATGCTACCCAGCACCCCATGTGCCAAAAGAAACCAGCTCCTGTGTCAAAGGGCT
TCCAAACCTGATCTCACTCTCAACAGGCGATGGTGTGATGTTTCAAGAATTGTGTTTTTATAAAACAGAGGTCT
CAGCATAGTCACTCTTACATAGTGCCTTACCCATGGGTATCGTCATATCCGGGTCCCAGTTTCAGTTTGTCTGCA
CAGCAGCCACCCTGCCTGGCAACAGAGACCCCAAGACCTACACAGTGAACCCTACTGCCCCAAAGGCGTTCTCCA

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FIGURE 4311B

GGTGACTTGTGAAAACAGACCTCCGGGGAAGTGATTTATTGGGGGTGTACACTGGGGGCAATATGGTTTAGCACT
GAATTC AATTTGTCCTTAGGTCTATGAGTGAGTCCGATCTTTTCTTGTGAAAGGTTTTGGGCATCGTACAACCCA
CTCTGCCTAGAAGGTGTGGAGGACTCACCACGGGCAGGGTCGCCCTGGCCCACAGCACGTGAGCCTGCACTCACT
GCGGCCTTTGTAACAAAACCAGTTGTGGTCCTCAGCATTGAAGCAGCTGCATACTTCAGAGTAAACTATTTTTC
ATTATTTAGTTTTGTCACAAGAAATCGACCATTGTACTACTCTCACTTACAGCAGTTAAACAGCATAGAACTAAA
AACCIGTCTGCATTTCCATTTTTTCTTTCTGTATGGTTGTGGGTTTTAGGACATAGGGGGTTAGGAGAAGGGGT
TCTTGATCATGTCATGAATTCCTTTGTCCTGTTTCTCCTGTTTCATTTCTCCTCCGCCTGCTGTATATTACCT
GAGCTGGTGTGTATCTTCAAGTCCATATGCGTATTTGCAGACCTTTCCTGTTCCCACTCTTGTGGCTCTTCTG
ATTTATGCACAGATGGTTCCCAGCATGTGTCCAGTGCTTCATGGATGGGACCATCCCAGCACTAATCAGACTTC
CTGCCAGTGTCTTAACCCCCAGGGCACCCGTGTTCAACCATATTTAAAAATTGGAATTTGTATAAAGTTGCTTCCA
AGTTTTATAATGCATCATTTTACATCTTTTGTAAATAAAAGCATCACAATGAGGTTGTCTCTGC

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FIGURE 4312

TTTTTCTGGTAGAAGGCGGGGTTCTCCTCGTACGCTGCGGAGTCTCTGCGGGGTGTAGACCGGAATCCTGCTGAC
GGGCAGAGTGGATCAGGGAGGGAGGGTCGAGACACGGTGGCTGCAGGTCTGAGACAAGGCTGCTCCGAGGTAGTA
GCTCTCTTGCCTGGAGGTGGCCATTCTCCTGGAGTGTCTGCTGAGGAGCGAGGGCCCATCTGGGGTCTCTGGAA
GTCGGTGGCCAGGCCTGAAGGATAGCCCCCTTGCCTTCCCTGGGCTGCGGCCGGCCTTCTCAGAACGAAGGGC
GTCCTTCCACCCCGCGGCGCAGGTGACCGCTGCCATGGCCTTTCCCATCGGCCGGACGCCCTGAGCTGCCTGA
CTTCTCCATGCTGAAGAGGCTGGCTCGAGACCAGCTCATCTATCTGCTGGAGCAGCTTCTGGAAAAAGGATTT
ATTCTTGAAGCAGATCTCATGAGCCCTTTGGATCGAATTGCCAATGTCTCCATCCTGAAGCAACACGAAGTAGA
CAAGCTATACAAGGTGGAGAACAAGCCAGCCCTCAGCTCCAATGAACAATTGTGCTTCTTGGTCAGACCCCGCAT
CAAGAATATGCGATACATTGCCAGTCTTGTCAATGCTGACAAATTGGCTGGCCGAACCTCGCAATACAAAGTGAT
CTTCAGCCCTCAAAGTTCTATGCGTGTGAGATGGTGCTTGAGGAAGAGGGAATCTATGGAGATGTGAGCTGTGA
TGAATGGGCCTTCTCTTTGCTGCCTCTTGATGTGGATCTGCTGAGCATGGAACCTACCAGAATTTTTCAGGGATTA
CTTCTGGAAGGAGATCAGCGTTGGATCAACACTGTAGCTCAGGCCTTACACCTTCTCAGCACTCTCTATGGACC
CTTTCCAAACTGCTATGGAATTGGCAGGTGCGCCAAGATGGCATATGAATTGTGGAGGAACCTGGAGGAGGAGGA
GGATGGCGAAACCAAGGGCCGAAGGCCAGAGATTGGACATATCTTCTCTTGGACAGAGATGTGGACTTTGTGAC
AGCACTTTGCTCCCAAGTGGTTTATGAGGGCTAGTAGATGACACCTTCCGCATCAAGTGTGGGAGTGTGCACTT
TGGCCCAGAAGTCACATCCTCTGACAAGAGCCTGAAGGTGCTACTCAATGCCGAGGACAAGGTGTTAATGAGAT
TCGGAACGAGCACTTCTCCAATGTCTTTGGCTTCTTGAGCCAGAAGGCCCGGAACCTGCAGGCCAGTATGATCG
CCGAGAGGCATGGACATTAAGCAGATGAAGAATTTCTGTCCCAGGAGCTCAAGGGCCTGAAACAGGAGCACCG
CCTGCTGAGTCTCCATATTGGGGCCTGTGAATCCATCATGAAGAAGAAAACCAAGCAGGATTTCCAGGAGCTAAT
CAAGACTGAGCATGCACTGCTAGAGGGGTTCACATCCGGGAGAGCACCAGCTACATTGAGGAACACATAGACCG
GCAGGTGTGCGCTATAGAAAGCCTGCGCCTCATGTGCCTTTTGTCCATCACTGAGAATGGTTTGATCCCCAAGGA
TTACCGATCTCTGAAAACACAGTATCTGCAGAGCTATGGCCCTGAGCACCTGCTAACCTTCTCCAATCTGCGAAG
AGCTGGGCTCCTAACGGAGCAGGCCCCCGGGGACACCCTCACAGCCGTGGAGAGTAAAGTGAAGCAAGCTGGTGAC
CGACAAGGCTGCAGGAAAGATTACTGATGCCTTCAGTTCTCTGGCCAAGAGGAGCAATTTTCTGTCCATCAGCAA
AAAGCTGAATTTGATCCACGTGTGGACGGCGAGTATGATCTGAAAGTGCCCCGAGACATGGCTTACGTCTTCAG
TGGTGCTTATGTGCCCCTGAGCTGCCGAATCATTGAGCAGGTGCTAGAGCGGCGAAGCTGGCAGGGCCTTGATGA
GGTGGTACGGCTGCTCAACTGCAGTGACTTTGCATTACAGATATGACTAAGGAAGACAAGGCTTCCAGTGAGTC
CCTGCGCCTCATCTTGGTGGTGTCTTGGGTGGTTGTACATTCTCTGAGATCTCAGCCCTCCGGTTCCTGGGCAG
AGAGAAAGGCTACAGGTTCAATTTTCTGACGACAGCAGTCACAAACAGCGCTCGCCTTATGGAGGCCATGAGTGA
GGTGAAAGCCTGATGTTTTTCCCGGCCAGTGTGACATCTTCCCTGAACACATTCTCAGTGAGATGCAGGCATC
TGGCACCAGCTGCTATAACCAAGTGTCCACCAACTACCTGCTAAGAGCCGGGAGCATGGAACGTGTTGGGATTT
AGAGAACATTATCTGAGAAAAGAGTTCACTTCTGTCTCCAGGATATTTCTCTTTTCTGTTTATGAAGTACAACC
CATGCTGCTAAGATGCGAGCAGGAAGAGGCATCCTTGTCTAAATCCTGTTTGAATGTCATTGTAAATAAAGCCTC
TGCTCTCAGATGTAAAAA

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FIGURE 4313

MAFPHRPDAPELPDFSMKRLARDQLIYLLEQLPGKKDLFIEADLMSPLDRIANVSILKQHEVDKLYKVENKPAL
SSNEQLCFLVRPRIKNMRYIASLVNADKLAGRTRKYKVIFSPQKFYACEMVLEEEGIYGDVSCDEWAFSLLPLDV
DLLSMELPEFFRDYFLEGDQRWINTVAQALHLLSTLYGPFPCYIGRCAKMAYELWRNLEEEEDGETKGRRPEI
GHIFLLDRDVFVTALCSQVVEGLVDDTFRIKCGSVDFGPEVTSSDKSLKVLLNAEDKVFNEIRNEHFSNVFGF
LSQKARNLQAQYDRRRGMDIKQMKNFVSQELKGLKQEHRLLSLHIGACESIMKKKTKQDFQELIKTEHALLEGFN
IRESTSYIEEHIDRQVSPIESLRMLCLLSITENGLIPKDYRSLKTQYLQSYGPEHLLTFSNLRRAGLLTEQAPGD
TLTAVESKVSCLVTDKAAGKITDAFSSLAKRSNFRAISKLNLIIPVDGEYDLKVPRDMAYVFSGAYVPLSCRII
EQVLERRSWQGLDEVVRLNCSDFAFDTMTKEDKASSESLRLILVVFLGGCTFSEISALRFLGREKGYRFIFLTT
AVTNSARLMEAMSEVKA

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FIGURE 4314

GACGGGACGCGACGCCAATCGCGACGAGGCTTCGCCCCGTGGCGCGGTTTGAAATTTTGCGGGGCTCAACGGCTC
GCGGAGCGGCTACGCGGAGTGACATCGCCGGTGTTTGCGGGTGTTGTTGCTCTCGGGGCCGTGTGGAGTAGGTC
TGGACCTGGACTCACGGCTGCTTGGAGCGTCCGCCATGAGGAGAAGTGAGGTGCTGGCGGAGGAGTCCATAGTAT
GTCTGCAGAAAGCCCTAAATCACCTTCGGGAAATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGGTTACAAA
GAACTGAGGTGGTAAAGAAGCATATCAAGGAACCTCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAA
GACTCATCAAAAGCATATCCGTCTGTCAGAAAGAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTC
AGGTCCGTGGCAGCCACAGGGTCTCTGGTGATCTGTCTGGGGCCTGAGACTTAGAAAGCAACGTTGACTTGGGC
CTGCAGATGGAAGGCTTCCTCGTAGGGATGGAGCTAGACGAAGAAGGAGAGACGACCATCTTGCAACTAGAAAAA
GATTTGCGCACCCCAAGTGGAATTGATGCGAAAACAGAAAAAGGAGAGAAAAACAGGAAGTGAAGCTACTTCAAGAG
CAAGATCAAGAAGTGTGCGAAATTCTTTGTATGCCCCACTATGATATTGACAGTGCCTCAGTGCCAGCTTAGAA
GAGCTGAACCAGTTCAGGCAACATGTGACAACTTTGAGGGAAACAAAGACATTTCTTTGCGGGAGGCTAGAGGGC
TAGCCTCTGTGCTGCTGCTTTGCCGTGAGTGACACTGGCTTTCTATGCTGTAGCTGGAAATGCAGAAATCACAAA
ATGAAGCAGTGTGTGAGGGGCTGCGTACTCAAATCCGAGAGCTCTGG

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FIGURE 4315

GGCACGAGGGGCGTTTCCTCCAAGGCTGCCACCAGAAGGACCTGCCCGAGAGGGTAGAGGGCATAGGGTCAAGA
TCAAGATAAGGCAGCTCCAGCCCCTGGAAGGCCAGAGACTTGCCAGTGTCCACTAGCGGGCTCTTCGCAAGAAT
CCCCCGGGCCCGCCGAGCCAGGCGGCGGCCGGCAGAGGGCGCTGCTCGGGCATGGCGGAGGAGCGGCCGGGGG
CCTGGTTTCGGCTTCGGTTTTCTGCGGCTTCGGGCAGGAGCTGGGCTCCGGACGCGGGCGCCAGGTGCACAGCCCCA
GTCCGCTGCGGGCGGGCGTCGACATCTGCCGCGTGAGCGCGAGCTGGAGCTACACCGCTTTCGTGACCCGTGAGC
ATCCCCCGCCCCGTCCCCACTTATTCAGCCGCGCTCCCCAGTCGCCTCCCCGCACCGCTGTGGCCAGTCCAGTT
TGTCTCCCCCGTTTAGGCCGCCAGCCCCACATTCTGGGTTGGTCCCCAATTGACCCCTTCCCAGGAACACCCCG
CTCCCCCATCCCCGCGCCTCCATTCTGGCCACCTGCTCCAATCCGCCCCGCAGGTGGAGGCCGCTTGGAGCT
GTCGGGCTCAGCCAGCGGCGCGGGCGGGCTGCAAGGACGCGTGGGCTCGGAGGGGCTCCTCGCGGTGCTGCG
CGCCGGGCGGGGCGGAGGCGTTACTGAGTCTGGGCGGCCGAATCGGCGCTGCGTGGGGAGCCATTGTGGGC
CCAGAATGTGGTGCCGAGGCCGAAGGGGAAGACGATCCGGCCGGTGAGGCCAGGCTGGGAGGCTACCCCTGCT
GCCCTGCGCCCGTGCTTACGTGAGCCCGCGGGCGCCCTTCTACCGGCTCTGGCTCCGGAGCTGCGGGCACGCCA
GCTGGAGCTGGGCGCCGAGCGGCTTGTGTGTGTGAGTGAGACTGGGGATATTTATATCTGGGGCTGGAA
TGGACAGCTGGGCCATGGGACCCTGGAGGCAGAGCTGGAGCCACGGCTGTTGGAGGCGTTGCAGGGCCTAGTCAT
GGCTGAGGTGGCCGCGGGGGGCTGGCATTCTGTGTGTGTGAGTGAGACTGGGGATATTTATATCTGGGGCTGGAA
TGAATCAGGGCAGCTGGCCCTGCCACCAGGAACCTGGCAGAGGATGGAGAGACTGTCGCAAGGGAAGCCACAGA
ACTGAATGAAGATGGTTCTCAGGTGAAGAGAACGGGTGGGGCTGAGGATGGAGCCCCCTGCCCCCTTCATAGCTGT
CCAGCCCTTCCCGGCATTACTGGATCTCCCCATGGGCTCAGATGCAGTCAAGGCCAGCTGTGGATCCCGGCACAC
AGCTGTGGTGACACGAACAGGGGAGCTCTACACCTGGGGCTGGGGTAAATATGGACAGCTGGGCCACGAGGACAC
CACCAGCTTGGATCGGCCTCGCCGTGTGGAATACCTTTGTAGATAAGCAACTCCAAGTAAAGGCTGTCACCTGTGG
GCCGTGGAACACCTACGTGTATGCTGTGGAGAAAGGGAAGAGCTTGACATGTGTACGTATATGTATATGCAACACC
TGTGAGACCCCCATTTCAGGTCAAGGAAAACCATTGCCTGCACCCCAAGGGCCCCATATTTGCCCTCCCCATCAC
AGTCCTGCCCTTACCCCTCAAGCACGGTCTTAACTTGTCTGCACCTTTAGAAACACCTGGAGAGCATTGAAAAC
CTGCTGCCTAAGGTGAGCATCAATCAAAACAATGAAATCAATGAAACAATGAAACCAGAGCTTCTAGGTGTGTGG
CCTGGATAGTGGTAGATTCAAAGCTCCACCCACCTCATCCCAGGTACATTGATGTGCAGCTGAGATTGGGGCAC
ATTCCAGGTGATCGTCTTCTGTGAGTCAATTCCTGCTTTGTTTTGAATTTTACCATTCTTGTATGCAGCCTTAT
ACGACATAGTTGTGTTTTGCTTTTGTAGTGTAGATAAATGGAATCCTGTGTATGTGCTTTTGTGTCGTTTTGTCA
CTCAGCATTGTATAATCCATCCTTGTGGGTCTGGAGTTCATTTTAAATGCTATATGGTGTCTGTTGTATGAA
TAATACCTCAAGTGATACAAAAA

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FIGURE 4316

MAEVAAGGWHSVSVSETGDIYIWGWNESGQLALPTRNLAEDGETVAREATELNEDGSQVKRTGGAEDGAPAPFFIA
VQFPFALLDLPMGSDAVKASCSRHTAVVTRTGELYTWGWGKYGQLGHEDTTS�DRPRRVEYFVDKQLQVKAVTC
GPWNTYVYAVEKGKS

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FIGURE 4317

CGCCCCGCGGCCGAGGTGGACGGAGCCTCCCGGCTCGCTGCTCCCGCCGGCGGAGCGAGGCTGCCCTTTCTTCGCA
 GCGTGATTTATTTTCTTCTTTTTTCTGAACTCTTCTTCCAGGGAGAGGCTAGTGGTAACAGGCCGAGCTGGATG
GATGGGTATGGGGAGAGGGGCAGGACGTTAGCCCTGGGATTCTGGCCGACCCTCGCCTTCTTCTCTGCAGCTT
 CCCCAGCCACCTCCCCGTGCAAGATCCTCAAGTGCAACTCTGAGTTCTGGAGCGCCACGTGCGGCAGCCACGC
 CCCAGCCTCAGACGACACCCCCGAGTTCTGTGCAGCCTTGCGCAGCTACGCCCTGTGCACGCGGCGGACGGCCCCG
 CACCTGCGGGGGTGACCTGGCCTACCCTCGGCCGTCCATGGCATAGAGGACCTCATGAGCCAGCACAACTGCTC
 CAAGGATGGCCCCACCTCGCAGCCACGCCTGCGCAGCTCCACCGGCCGAGACAGCCAGGAGCGCTCGGACAG
 CCCCAGATCTGCCATTACGAGAAGAGCTTTCACGACCGCTTCCAGACTCGGCCACCCCCAACTACACGCACTGTGGCCTCTT
 CGGGGACCCACACCTCAGGACTTTCACCGACCGTTCAGACTGCAAGGTGCAGGGCGCCTGGCCGCTCATCGA
 CAATAATTACCTGAACGTGCAGGTACCAACACGCTGTGTGCTGCCCGGCTCAGCGGCCACTGCCACCAGCAAGCT
 CACCATCATCTTCAAGAAGTTCAGGAGTGTGTGGACCAGAAGGTGTACCAGGCTGAGATGGACGAGCTCCCGGC
 CGCCTTCGTGGATGGCTCTAAGAACGGTGGGGACAAGCACGGGGCCAACAGCCTGAAGATCACTGAGAAGGTGTC
 AGGCCAGCACGTGGAGATCCAGGCCAAGTACATCGGCACCACCATCGTGGTGCGCCAGGTGGGCCGCTACCTGAC
 CTTTGCCGTCCGCATGCCAGAGGAAGTGGTCAATGCTGTGGAGGACTGGGACAGCCAGGGTCTCTACCTCTGCCT
 GCGGGGCTGCCCCCTCAACCAGCAGATCGACTTCCAGGCCTTCCACACCAATGCTGAGGGCACCGGTGCCCGCAG
 GCTGGCAGCCGCCAGCCCTGCACCCACAGCCCCGAGACCTTCCCATACGAGACAGCCGTGGCCAAGTGCAAGGA
 GAAGCTGCCGGTGGAGGACCTGTACTACCAGGCCTGCGTCTTCGACCTCCTCACCACGGGCGACGTGAACTTCAC
 ACTGGCCGCCTACTACGCGTTGGAGGATGTCAAGATGCTCCACTCCAACAAAAGACAAAAGTGCACCTGTATGAGAG
 GACTCGGGACCTGCCAGGCAGGGCGGCTGCGGGGCTGCCCTGGCCCCCGGCCCTCCTGGGCGCCCTGGTCCC
 GCTCCTGGCCCTGCTCCCTGTGTTCTGCTAGACGCGTAGATGTGGAGGGAGGCGCGGGGCTCCGTCTCTCGGCTT
 CCCCATGTGTGGGCTGGGACCGCCCACGGGGTGCAGATCTCCTGGCGTGTCCACCATGGCCCCGAGAACGCCAG
 GGACCGCCTGCTGCCAAGGGCTCAGGCATGGACCCCTCCCTTCTAGTGACGCTGACAAGGTTGTGGTGACTGGT
 GCCGTGATGTTTGACAGTAGAGCTGTGTGAGAGGGAGAGCAGCTCCCCCTCGCCCCGCCCCCTGCAGTGTGAATGTG
 TGAAACATCCCCCTCAGGCTGAAGCCCCCACCACAGAGACACACTGGGAACCGTCAGAGTCAGCTCCTTCC
 CCCTCGCAATGCACTGAAAGGCCCGGCGACTGCTGCTGCTGATCCGTGGGGCCCCCTGTGCCCGCCACACGCA
 CGCACACACTCTTACACGAGAGCACACTCGATCCCCCTAGGCCAGCGGGGACACCCAGCCACACAGGGAGGCAT
 CTTGGGGCTTGGCCCCAGGCAGGGCAACCCCGGGGCGCTGCTTGGCACCTTAGCAGACTGCTGGAACCTTTTGG
 CCAGTAGGTGCTGCCGCTGGTGCCTTCTGGCCTGTGGCCTCCCTGCCCATGTTACCTGGCTGCTGTGGGTAC
 CAGTGACGGTCCCGGTTTTTCAGGCACCTGCTCAGCTGCCCGTCTCTGGCCTGGGGCCCCCTGCCCTTCCACCTGT
 GCTTAGAAAGTCGAAGTGCTTGGTTCTAAATGTCTAAACAGAGAAGAGATCCTTGACTTCTGTTCCTCTCCCTCC
 TGCAGATGCAAGAGCTCCTGGGCAGGGGTGCCGGGGCCAGGGTGTGGCAGGAGACCCAGTGGATGGGGCCAGC
 TGGCCTGCCCTGATCCTCTGCTTCTCTCACAACCCCAAGAGCCCCCAGCCCGGTCCATCCACGTCTGGAGTCT
 GGGGAGAGGAGCAGGGTCTTAGGACTCTCAGCTCTGAGCATCCCTGGCAGGGTCTTCAACCTCTAATCTCTTCCC
 TTAAGCCCTGTGGCCACACAGCCAGGAGAGACTTGCCGCTGGCTCCCGCCTCATTTAGCCCAAGGTGCTCATCC
 AGGGGCCCAGAACAGTCCCACCTGTGCTGCTATGCCACAGCACAAAGCCAGGCTTCACTCCCAAAAGTGCAGCC
 AGGCCCTGGAGGGTGATCCTGCCAGCAGCCCTACAGCTCCACACCTACCCACCCATCGGCAGCCCCCTCTGCTGT
 TCCCCAGGGACCTCTCATACACTGGCCAGGAGGCTGCAGAACGTGTGTCTCCCCCTCCCTCCAAGAGGTCCCTGCT
 CCCTCTGCCAGAACCCTGTGTGGGCGGGTGGGAGGGCGCTCGGGGGCCCGGCCCTCCCTCTCCCTGCTGGTTTTA
 GTTGGTCCCTATGTTGGAAGTAAAAAGTGAAGCACTTTATTTTGGTTGTGTTGCTCACGTTCTGCTTGAAGTG
 GGGACCCCTCACTGCGTCCACGTGTCTGCGACCTGTGTGGAGTGTACCCGCGTGACATACTGTAAATTATTTAT
 TAATGGCTAAATGCAAGTAAAGTTTGGTTTTTTTTTGT

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FIGURE 4318

MGMGRGAGRSALGFWPTLAFLLCSFPAATSPCKILKCNSEFWSATSGSHAPASDDTPEFCAALRSYALCTRRTAR
TCRGDLAYHSAVHGIEDLMSQHNCSKDGPTSQPRRLTLPPAGDSQERSDSPEICHYEKSFHKHSATPNYTHCGLF
GDPHLRTFTDRFQTCKVQGAWPLIDNNYLVQVTNTPVLPGSAATATSKLTIIIFKNFQECVDQKVYQAEMDELPA
AFVDGSKNGGDKHGANSLKITEKVSGQHVEIQAKYIGTTIVVRQVGRYLTFAVRMPEEVVNAVEDWDSQGLYLCL
RGCPLNQIDFQAFHTNAEGTGARRLAAASPAPTAPETFPYETAVAKCKEKL PVEDLYYQACVFDLLTTGDVNFT
LAAYYAL EDVKMLHSNKYKLHLYDRTRDLPGRAAAGLPLAPRLLGALVPLLALLPVFC

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FIGURE 4319

AGCCGGTGCGCCGAGACTAGGGCGCCTCGGGCCAGGGAGCGCGGAGGAGCCATGGCCACCGCTAACGGGGCCGT
GGAAAAACGGGCGACCCGGACAGGAAGCCGCCGGCCCTGCCGCGCCCCATCCGCAACCTGGAGGTCAAGTTCACCAA
GATATTTATCAACAATGAATGGCACGAATCCAAGAGTGGGAAAAAGTTTGCTACATGTAACCCCTTCAACTCGGGA
GCAAAATATGTGAAGTGAAGAAGGAGATAAGCCCCGACGTGGACAAGGCTGTGGAGGCTGCACAGGTTGCCTTCCA
GAGGGGCTCGCCATGGCGCCGGCTGGATGCCCTGAGTCGTGGCGGCTGCTGCACCAGCTGGCTGACCTGGTGA
GAGGGACCGCGCCACCTTGGCCGCCCTGGAGACGATGGATACAGGGAAGCCATTTCTTCATGCTTTTTTTCATCGA
CCTGGAGGGCTGTATTAGAACCCTCAGATACTTTGCAGGGTGGGCGAGACAAAATCCAGGGCAAGACCATCCCCAC
AGATGACAACGTCGTGTGCTTCACCAGGCATGAGCCCATTTGGTGTCTGTGGGGCCATCACTCCATGGAACCTCCC
CCTGCTGATGCTGGTGTGGAAGCTGGCACCCGCCCTCTGCTGTGGGAACACCATGGTCTGAAGCCTGCGGAGCA
GACACCTCTCACCGCCCTTTATCTCGGCTCTCTGATCAAAGAGGCCGGGTTCCTCCAGGAGTGGTGAACATTGT
GCCAGGATTCGGGCCCACAGTGGGAGCAGCAATTTCTTCTCACCTCAGATCAACAAGATCGCCTTCACCGGCTC
CACAGAGGTTGGAAAAGTGGTTAAAGAAAGCTGCGTCCCGGAGCAATCTGAAGCGGGTGACGCTGGAGCTGGGGGG
GAAGAACCCTGTCATCGTGTGTGCGGACGCTGACTTGGACTTGGCAGTGGAGTGTGCCATCAGGGAGTGTCTT
CAACCAAGGCCAGTGTGTCACGGCAGCCTCCAGGGTGTTCGTGGAGGAGCAGGTCTACTCTGAGTTTGTGAGCG
GAGCGTGGAGTATGCCAAGAAACGGCCCGTGGGAGACCCCTTCGATGTCAAACAGAACAGGGGCCCTCAGATTGA
TCAAAGCAGTTCGACAAAATCTTAGAGCTGATCGAGAGTGGGAAGAAGGAAGGGGCCAAGCTGGAATGCGGGGG
CTCAGCCATGGAAGACAAGGGGCTCTTCATCAAACCCACTGTCTTCTCAGAAGTCACAGACAACATGCGGATTGC
CAAAGAGGAGATTTTCGGGCCAGTGAACCAATACTGAAGTCAAAGATATCGAAGAAGTGATAAAAAGAGCGAA
TAGCACCGACTATGGACTCACAGCAGCCGTGTTCAAAAAATCTCGACAAAGCCCTGAAGTTGGCTTCTGCCTT
AGAGTCTGGAACGGTCTGGATCAACTGCTACAACGCCCTCTATGCACAGGCTCCATTTGGTGGCTTTAAATGTC
AGGAAATGGCAGAGAACTAGGTGAATACGCTTTGGCCGAATACACAGAAGTGAAGAACTGTCAACCATCAAACCTGG
CGACAAGAACCCTGAAGGAAAGCGGGGCTCCTTCCTCAAACATCGGACGGCGGAATGTGGCAGATGAAATGTG
CTGGAGGAAAAAATGACATTTCTGACCTTCCGGGACACATTCTTCTGGAGGCTTTACATCTACTGGAGTTGAA
TGATTGCTGTTTTCTCTACTCTCCTGTTTATTACCAGACTGGGGATGCCTATAGGTTGTCTGTGAAATCGCA
GTCCTGCCCTGGGGAGGGAGCTGTTGGCCATTTCTGTGTTTCCCTTTAAACCAGATCCTGGAGACAGTGAGATACT
CAGGGCGTTGTTAACAGGGAGTGGTATTTGAAGTGTCCAGCAGTTCCTTGAAATGCTTTGCCGAATCTGACTCCA
GTAAGAATGTGGGAAAACCCCTGTGTGTTCTGCAAGCAGGGCTCTTGCAACAGCGGTCTCCTCAGGGTGGACCT
GCTTACAGAGCAAGCCACGCCTCTTTCCGAGGTGAAGGTGGGACCATTCTTGGGAAAGGATTACAGTAAGGTT
TTTTGGTTTTTTGTTTTTTGTTTTCTGTTTTTAAAAAAGGATTTACAGTGAGAAAAGTTTTGGTTAGTGATAC
CGTGGAAGGGGCCAGGGTCTTTGTGGATTGCATGTTGACATTGACCGTGAGATTTCGGCTTCAAACCAATACTGC
CTTTGGAATATGACAGAATCAATAGCCCAGAGAGCTTAGTCAAAGACGATATCACGGTCTACCTTAACCAAGGCA
CTTTCTTAAGCAGAAAATATTGTTGAGGTTACCTTTGCTGCTAAAGATCCAATCTTCTAACGCCACAACAGCATA
GCAAATCCTAGGATAATTCACCTCCTCATTGACAAATCAGAGCTGTAATTCGCTTTAACAAATTACGCATTTCT
ATCACGTTCACTAACAGCTTATGATAAGTCTGTGTAGTCTTCCTTTTCTCCAGTTCTGTTACCCAATTTAGATTA
GTAAAGCGTACACAACCTGGAAGACTGCTGTAATAACACAGCCTTGTTATTTTAAGTCTATTTTGATATTAAT
TTCTGATTAGTTAGTAAATAACACCTGGATTCTATGGAGGACCTCGGTCTTCATCCAAGTGGCCTGAGTATTCA
CTGGCAGGTTGTGAATTTTTCTTTTCTTTTGGGGATCCAAATGATGATGTGCAATTTTCATGTTTTAACTTGGG
AAACTGAAAGTGTTCCCATATAGCTTCAAAAACAAAACAAATGTGTTATCCGACGGATACTTTTATGGTTACTA
ACTAGTACTTTTCTAATTGGGAAAGTAGTGCTTAAGTTTGCAAATTAAGTTGGGGAGGGCAATAATAAAATGAGG
GCCCCGTAACAGAACAGTGTGTGTATAACGAAAACCATGTATAAAATGGGCCATCACCTTGTGACAGATATAA
ATTACCACATTTGCCTTCCCTTATCAGCTAACCTTATCACTTATACTACCAATAACTTGTTAAATCAGGATTT
GGCTTCATACACTGAATTTTTCAGTATTTTATCTCAAGTAGATATAGACACTAACCTTGATAGTGATACGTTAGAG
GGTTCTTATTCTTCCATTGTACGATAATGTCTTTAATATGAAATGCTACATTATTTATAAATTGGTAGAGTTATTG
TATCTTTTTATAGTTGTAAGTACACAGAGGTGGTATATTTAACTTCTGTAATATACTGTATTTAGAAATGGAAA
TATATATAGTGTAGGTTTCACTTCTTTTAAAGGTTTACCCCTGTGGTGTGGTTTTAAATCTATAGCCCTGGGAA
TTCCGATCCTAGCTGCAGATCGCATCCACAATGCGAGAATGATAAAATAAAATTGGATATTTGAGA

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FIGURE 4320

GAATTCGCGGGAGGCCACGGGCTTTCCACAGCGCGGGGGAACGGGAGGCTGCAGGATCGGTCAAGCTGACGGCGG
AGCTGATCGAGCAGGCGGCGCAGTACACCAACGCGGTGCGCGACCGGGAGCTGGACCTCCGGGGGTATAAAATTC
CCGTCATTGAAAATCTAGGTGCTACGTTAGACCAGTTTGATGCTATTGATTTTTCTGACAATGAGATCAGGAAAC
TGGATGGTTTTCTTTGTTGAGAAGACTGAAAACATTGTTAGTGAACAACAACAGAATATGCCGTATAGGTGAGG
GACTTGATCAGGCTCTGCCCTGTCTGACAGAACTCATTCTCACCAATAATAGTCTCGTGGAAGTGGGTGATCTGG
ACCCTCTGGCATCTCTCAAATCGCTGACTTACCTAAGTATCCTAAGAAATCCGGTAACCAATAAGAAGCATTACA
GATTGTATGTGATTTATAAAGTTCCGCAAGTCAGAGTACTGGATTTCAGAAAGTGAAACTAAAAGAGCGTCAGG
AAGCAGAGAAAATGTTCAAGGGCAAACGGGGTGACAGCTTGCAAAGGATATTGCCAGGAGAAACAAAATTTTA
ATCCAGGTGCTGGTTTGCCAACTGACAAAAAGAGAGGTGGGCCATCTCCAGGGGATGTAGAAGCAATCAAGAATG
CCATAGCAAATGCTTCAACTCTGGCTGAAGTGGAGAGGCTGAAGGGGTGCTGCAGTCTGGTCAGATCCCTGGCA
GAGAACGCAGATCAGGGCCCACTGATGATGGTGAAGAAGAGATGGAAGAAGACACAGTCACAAACGGGTCCTGAG
CAGTGAGGCAGATGTATAATAATAGGCCCTCTTGGAACAAGTCTTGCTTTTCGAACATGGTATAATAGCCTTGTT
TGTGTTAGCAAAGTGAATCTATCAGCATTGTTGAAATGCTTAAGACTGCTGCTGATAATTTTGTAATATAAGTT
TTGAAATCTAAATGTCAATTTCTACAAATTATAAAAATAAACTCCACTCTCTATGCTAAAAAAAAAAAAAAGGA
ATTC

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FIGURE 4321

MVKLTAE LIEQAAQYTN AVRDRELDLRGYKIPVIENLGATLDQFDAIDFSDNEIRKLDGFPLLRRLKTL LVNNNR
ICRIGEGLDQALPCLTELILTNNSLVELGDL DPLASLKS LTYLSILRNPVTNKKHYRLYVIYKVPQVRVLDFQKV
KLKERQEA EKMFKGKRG AQLAKDIARRSKTFNPGAGLPTDKKRGGPSPGDVEAIKNAIANASTLA EEVERLKGLLQ
SGQIPGRERRSGPTDDGEEEMEEDTVTNGS

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FIGURE 4322

GACACTATCCGTGCGGCCAGGCGGAGACCCGGAGGACCGAAGCTTCCGGACGACGAGGAACCGCCCAACATGGCC
TCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGTTCAACGCGTCC
ATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCAGGGGCCTGGAGAAGGCA
GGGCTCCTCACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTGGCTGAGGAGTGGGCCCAGGGC
ACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGCGCCGCCTGAAGGAGCTCATTGGTGCA
ACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGTGGTCACAGACCTCAGGCTGTGGATGCGGCAG
ACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATTAGGACCATGGTGGATCGGGCAGAGGCGGAACGTGAT
GTTCTCTTCCCGGGGTACACCCATTTGCAGAGGGCCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCC
GTGGCACTGACCCGAGACTCTGAGCGGCTGCTGGAGGTGCGGAAGCGGATCAATGTCCTGCCCCCTGGGGAGGTGG
GGCCATTGCAGGCAATCCCCTGGGTGTGGACCAGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCT
CAACAGCATGGATGCCACTAGTGAGCGGGACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCA
TCTCAGCAGGATGGCCGAGGACCTCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTA
CAGCACGGGAAGCAGCCTGATGCCCCAGAAGAAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCG
TGTGTTTGGGCGGTGTGCCGGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGA
GGACAAGGAAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATCTCTAC
GCTGCAGATTACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCCTATTACCT
GGTCCGCAAAGGGATGCCATTCCGCCAGGCCCACGAGGCCTCCGGGAAAGCTGTGTTTATGGCCGAGACCAAGGG
GGTCGCCCTCAACCAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTCTCGGGCGACGTGATCTGCGT
GTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCCAGCGTCGACTGGCAGAT
CCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCCTAGGTCTCCACACCTGCCCCCTAATAAAGTGGGCGC
GAG

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FIGURE 4323A

GCACCAGAAGCCAGCAGTGGGGTTGCACACGCGCCTCTTCACGAGGTGGAAACAAGATGGAGGATTTCGGCCTCGG
CCTCGCTGTCTTCTGTCAGCCGCTACTGGAACCTCCACCTCGACTCCAGCGGCCCCGACAGCACGGAAGCAGCTGG
ATAAAGAACAGGTTAGAAAGGCAGTGGACGCTCTCTTGACGCATTGCAAGTCCAGGAAAAACAATTATGGGTTGC
TTTTGAATGAGAATGAAAGTTTTATTTTAAATGGTGGTATTATGGAAAATTCCAAGTAAAGAAGTGGGGTCAGAT
TGACCTTGCCTCATAGTATTTCGATCAGATTGAGAAGATATCTGTTTATTTACGAAGGATGAACCCAATTCAACTC
CTGAAAAGACAGAACAGTTTTATAGAAAAGCTTTTAAACAAGCATGGAATTAACCGTTTTCTCAGATTATCTCCC
TCCAAACTCTAAAGAAGGAATATAAATCCTATGAAGCCAAGCTCCGCTTCTGAGCAGTTTTGATTTCTTCCTTA
CTGATGCCAGAATTAGGCGGCTCTTACCCTCACTCATTGGGAGACATTTCTATCAAAGAAAAGAAAGTTCCAGTAT
CTGTAAACCTTCTGTCCAAGAAATTTATCAAGAGAGATCAATGACTGTATAGGTGGAACAGTCTTAAACATTTCTA
AAAGTGGTTCTTGTCAGTGTCTATACGTATTGGTCACGTTGGAATGCAATTGAGCACATCATTGAAAACATTGTTG
CTGTACCAAAGGACTTTTCAGAAAAATTGCCAGAGAAGTGGGAGAGCGTGAAACTCCTGTTTGTGAAAAGTGAAGA
AATCGGCTGCACCTTCCCATCTTTTCTCGTTTGTGAGCAATTGGGATGAAGCCACCAAAGATCTTGTCTTAATA
AGAAGAAAAAAGAGGCAAGGAGAAAAACGAAGAGAAAGAAATTTTGA AAAACAAAAGGAGAGGAAGAAGAAGAGGC
AGCAGGCTAGGAAGACTGCATCAGTTCTTAGTAAAGATGATGTGGCACCTGAAAGTGGTGATACTACAGTGAAGA
AACCTGAATCAAAGAAGGAACAGACCCAGAGCATGGGAAGAAAAACGTGGCAGAGGAAAAGCCCAAGTTAAAG
CAACAAATGAATCCGAAGACGAAATCCCACAGCTGGTACCAATAGGAAAGAAGACTCCAGCTAATGAAAAGTAG
AGATTCAAAAACATGCCACAGGAAAGAAGTCTCCAGCAAAGAGTCTTAATCCCAGCACACCTCGTGGGAAGAAAA
GAAAGGCTTTGCCAGCATCTGAGACCCCAAAAGCTGCAGAGTCTGAGACCCAGGGAAAAGGCCAGAGAAGAAGC
CAAAAATCAAAGAAGAGGCAGTGAAGGAAAAAAGTCCTTCGCTGGGGAAAAAAGATGCGAGACAGACTCCAAAAA
AGCCAGAGGCCAAGTTTTTACCCTCCTAGTAAATCTGTGAGAAAAGCTTCCCACACCCCAAAAAATGGCCCA
AAAAACCCAAAGTACCCAGTCGACCTAAAGTCAGTGATTCAACTGGAAGGAAACCTCAATGCTGCCTCCAGAGC
TTTTTGAAATACTCAGATCCTGGCCGCTTTGTAACTTCTCTAAACGTGAGGCTGGACTTAAAAGATTTTTT
AAAACCTCCATAAGTAGTCCAGGGGCGGTGGCTCAGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAGGCGG
ATCACAAGGTCAACGAGATCGAGACCATCTGGCCAACATGGTGAAACCTGTCTGTACCAAAAATACAAAATT
AATTGGGCATGGTGGTGGACACCTGTAATCCCAGCTACTAGGGAGGCTGAGGCAGGAGAATTGCTTGAACCTGGG
AGGCGGAGGTTGCAGTGAGCCACTGCACTCCAGCCTGATGACAGAGCAAGACTCAGTCTCAAAAATAAATAAAAA
TAATAAAACCTCCATAAGTAATCCTGACATATGTTTCTGGGTATAATCTGTTTCTAAATTGTCCTTCTGTGTATT
TGCTAATGTAATAGAGGGAAAAATAGAGTGCTTCTGTGTTGTTTCAGCACTTTAGGTAGCCAAGGTGAGAGGA
TTGCTTGAGGCCAGGAGTTTGAGACTAGCCTGGGCAACTTGGTAAAACCCCATCTCTACAAAAGAAAAA
TTAGTGTGGCATGGTGGCATGCATCTGTGCTCCAGCTCCTCAGAGGCTGAGGTGGAAGGATCAAGTGAGCGCA
AGAGGTTGAGGCTCCAGTGAGCCACGATCACCCCACTGTGCTGTAGCCTGGGTGACAGTGTGAGATTCTGTCTCA
GAAAAAACAAAGTATAACATTGCTTTGCTTCTGAGTATACTGTTGGCTTTCCAAATCAGTGGGTCTGACTTGAGG
TCTGTGATGTGACCTTTTCTCCTCACCTGCTCAACCATATTTCACATGGACTCCATCATATTTCATTTGTAGTCATT
CCCAGAGTGGCCAGTGAGGGTCTCGCTGTATGAGAGTCGGCTACGGAATTTAGGAGAAACAGAAGTTTCTTGGC
TTTCATGCTGAGCTTGTGGTCTAAGCTTATGAGTCACTGGATTAGCATCCATATGGGAAGGGAAATTAACATGG
AGTCATTTATACAGGGACTAAATTGAATCCTACCTACCGGAGGCAAGAACATGATTTATCTTCCATAAGCCTTAT
CCTCTTCTCCTTATTCTCAGTCCATATGGATTTGCTTATGTATGACAACTCCAAGGAATCTTGGAAGAGTAGA
TTGCTAACGTTTCCACAATTGTCAAGTATATTCTGAGGCAGTAAACACCTTTTTAGGTACGTGGCCTTTCAGTGG
TTGTGAATTGGTATGCATCCGTAGTAGTAAGTTTACAGATTCACTGCACTGAGGAATGTTCTTGATGCCAAAG
ACTCAACTGCTTTCAAAGATAATGTGGGTGCTAGATGCAGTGGCTTACATCTGTAACCTGTTAGGGTGACCAGA
CCCAACACCAGGTGCTGGGGGTGACAAAGTCCAGTGGAGTCAAAGGATTGAGAAAAAGACAGTTTGAGAGAGAAG
TAGGACCAGCAGACCATCGGGATGGTGGAGGCTGTGAAGGCCGTGAGCTCTGGGAGCCACACTATTTATTGGTA
ATCCAACAAAGAAACAGATGGTGAGAATGTGAAGGTGAGAAGGGCACCTTGCATTAAGCACATGATTTACAGCTG
TGATGGTTTAGCATTTGCTCTGCTACTTGAGATGATGGAAGAGCAGGTCTTTTTAACTCAAGTTACAGTCGATCCT
GGGAGAGCAAGGAGCCAGCAAGTCTAGACATTCCAGAGCCACAGGCCCTGGATTTTATCCAAGCCACGAGGGATT
TTATGCCCTGGGCTTAGATTATGGTGCCTCAGGGCAGCCTTCCACCTTTTAGCACAGAGCTTGGTGTTCCAAAGA
CCACAAGGGGTTTTAGACCTTGACCTGGACATATTCCAAGACTCTTTTACATTATGTCAGAATGCAAGCCCTG
CCTCAGCTTCTCCCAACACTCAGCTTTTCGCAACATAATCCAGCACTTTGGAACGCTGGGTGGATTGCTTGAAC

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FIGURE 4323B

CCAGGAGTTCGAGACCATCCTGGGCAATATGGCAAAACCCCATCTTTACCAAAAAATAAGCTGGGTGTGGTGGAAC
ATGCCTGTGGTCCCAGCTTCTTGGGAGGCTGAGGTGGGAGGATTGCTTGAACCCGGGAGGTAGAGGCTGCAATGG
GCCATGATCACGATCCTGCACTCCAGCCTGGGCAACAGAGAGAGACAGTCCCTGGCCCACTGCCCCCTTCCCTGG
CCCAGTCTCAAAAAAATGAGGCTGGGCGTGGTGGCTCACATCTGTAATCCCAGCCAAGGCTGGCAGATCACTTG
AGGCCAGGAGTTCTGAGACCAGCCTGGCTTACATGGTAAAACCCCATCTCTACTAAAAATACAAAACTAGCCAG
GCATGGTGGGAGGCACCTGTAATCCCAGCTACTTGGGAGGCTGAAGCAGGAGAATCACTTTAACCCGGGAGGTGG
AGGTTGCAGTGAGCTGAGATCACACCACTGCACTCCAGCCTGGGCGGCAGAGCAAACTGAAAAAAGAGAAAAA
AAAAAA

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FIGURE 4324

MEDSASASLSSAAATGTSTSTPAAPTARKQLDKEQVRKAVDALLTHCKSRKNNGLLNENESLFLMVVLWKIPS
KELRVRLTLPHSIRSDSEDICLFTKDEPNSTPEKTEQFYRKLLNKHGIKTVSQIISLQTLKKEYKSYEAKLRLLS
SFDFFLTDARIRLLPSLIGRHFYQRKKVPVSVNLLSKNLSREINDCIGGTVLNISKSGSCSAIRIGHVGMQIEH
I IENIVAVTKGLSEKLPEKWESVKLLFVKTEKSAALPIFSSFVSNWDEATKRSLNKKKKGGKEKTKRKKF

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FIGURE 4325

CCAGCCACTTCCGCTGGTCGGCGCTGGAGGTGTCCGTGGGCTTGTACACGTCCCTGTGCCAGTACTTCAGCGAGG
AGGATGTGGTGTGGCGGACAGAGGGGCTGCTGCCCCCTGGAGGAGACCTCGCCCCGCCAGGCCGTCTGCCTCACCC
GCCACCTCACCGCCTTCGGCGCCAGCCTCTTCATGCCCCCAAGCCATGAGCCGACAGCGGATGTAAACTACATCG
TCATGCTGACATGTGCTGTGTGCCTGGTGACCTACATGGTCATGGCCGCCATCCTGCACAAGCTGGACCAGTTGG
ATGCCAGCCGGGGCTGCGCCATCCCCCTTCTGTGGGCAGCGGGGCCGCTTCAAGTACGAGATCCTCGTCAAGACAG
GCTGGGGCCGGGGCTCAGGTACCACGGCCACGTGGGCATCATGCTGTATGGGGTGGACAGCCGGAGCGGCCACC
GGCACCTGGACGGCGACAGAGCCTTCCACCGCAACAGTCTGGACATCTTCCAGATCGCCACCCCGCACAGCCTGG
GTAGCGTGTGGAAGATCCGAGTGTGGCACGACAAAGGGCTCAGCCCTGCCTGGTTCTTGCAGCACATCATCGTCA
GGGACCTGCAGACGGCACGCAGCACCTTCTTCCTGGTC

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FIGURE 4326

CTGGGGCTGTGACCGTGGGGTCTGAAGCGCGCTGCGCGGCGGCGGCTGGCGGCGGCGGTGGGGCGGGGCGCTGGGC
TGTGAGCCGGCCTAGGAGGAGGAAGGAGCCTGCGGCGTGCAGTGTGAGGGGCGGGACCCGGCTGCCGGCGGTGGG
TCTAGCTGGGGGAGGTGCGGGCCATGCTGGTGGGCCAGGGCGCGGGGCGGCTGGGGCCCGCGGTGGTCACCGCCGC
GGTGGTGTCTGCTGCTGAGCGGCGTGGGGCCGGCGCACGGCTCGGAGGACATCGTGGTGGGCTGCGGTGGCTTCGT
CAAGTCGGACGTGGAGATCAACTACTCTCTCATCGAGATAAAGCTGTACACCAAGCATGGGACTTTGAAATACCA
GACAGACTGTGCCCCCTAATAATGGTTACTTTATGATCCCTTTGTATGATAAGGGGATTTCATTCTGAAGATTGA
GCCTCCCCCTAGGGTGGAGTTTTGAGCCGACGACCGTGGAGCTCCATGTGGATGGAGTCAGTGACATCTGCACAAA
GGGTGGGGACATCAACTTTGTCTTCACTGGGTTCTCTGTGAATGGCAAGGTCCTCAGCAAAGGGCAGCCCCCTGGG
TCCTGCGGGAGTTTCAGGTGTCTCTGAGAAACACTGGGACCGAAGCAAAGATCCAGTCCACAGTTACACAGCCTGG
CGGAAAGTTTTGCATTTTTTAAAGTTCTGCCTGGAGATTATGAAATCCTCGCAACTCATCAACCTGGGCGTTGAA
AGAGGCAAGCACCACAGTGCCTGTAAACCAACTCCAATGCCAATGCGGCCAGTCCCCTCATAGTTGCTGGCTACAA
TGTGTCTGGCTCTGTCCGAAGTGATGGGGAGCCCATGAAAGGCGTGAAGTTTTCTTCTTTTTCTTTCTTTAGTAAC
TAAAGAGGATGTCTGGGCTGCAATGTCTCACCAGTGCCTGGGTTCCAGCCCCAAGACGAGAGTCTGGTGTATTT
GTGCTACACGGTCTCCAGAGAAGATGGCTCGTTCTCTTTCTATTCTTGGCAAGTGGGGGCTACACTGTGATTCC
GTTCTATCGAGGGGAGAGGATTACCTTTGATGTGGCGCCTTCCAGACTTGACTTTCACAGTGGAGCATGACAGCTT
GAAAATCGAGCCCGTGTTCACGTCATGGGATTCTCCGTACCCGGGAGGGTCTTGAACGGACCCGAAGGAGATGG
TGTTCCAGAAGCAGTAGTCACCCCTGAATAACCAAATCAAAGTTAAAACAAAAGCTGATGGCTCATTCCGCCTTGA
GAACATAACCACAGGGACATACACCATCCATGCTCAGAAAGAGCACCTCTACTTTGAAACGGTCACCATCAAAAT
TGCACCAAACACACCTCAGCTGGCTGACATTGTTGCAACAGGGTTTCAGTGTCTGTGGTCAGATATCAATCATTCTG
CTTCCCCGACACCGTCAAGCAGATGAATAAATACAAAGTTGTCTGTCTCAAGACAAGGACAAGTCTTTGGT
CACCGTGGAGACAGATGCTCATGGATCATTTTGTTTTAAAGCAAACCCAGGGACTTACAAAGTGCAGGTGATGGT
TCCTGAGGCGAAGAACAGAGCAGGGCTGACGTTGAAACCCAGACATTTCTCTTACTGTGACCGACAGGCCTGT
GATGGATGTGGCCTTTGTACAGTTCTTGGCATCAGTTTCTGGGAAAGTCTCTTGTGTTGGACACCTGTGGTGACTT
GCTGGTGACTCTACAGTCCCTGAGCCGCCAGGGTGAAGCGGAGCCTCCAGCTCTCCGGCAAGGTCAACGCCAT
GACTTTACCTTTTGACAACGTGCTCCCTGGAATAACAAAATAAGCATCATGATGAGGATTGGTGCTGGAAGAA
CAAGAGCCTGGAGGTGGAAGTGTGGAGGATGACGTGTCTGCAGTTGAGTTCAGGCAGACGGGCTACATGCTGAG
ATGTTCCCTGTCTCACGCCATCACTCTGGAATTTTATCAGGATGGAATGGGCGTGAGAATGTGGGGATTATATAA
CCTCTCCAAAGGAGTCAACCGATTCTGCCTGTCCAAGCCTGGTGTGTACAAAGTGACCCCTCGCTCCTGCCACCG
GTTTGAGCAAGCGTTCTACACCTATGACACGTCTTACCTAGTATCTTGACATTGACAGCCATTGCCCACCATGT
CCTTGGAATATCACCACCGACAAAATGATGGATGTCACTGTGACTATCAAGTCTTCCATCGACAGTGAACCCGC
CTTGGTCTTAGGCCCTCTGAAGTCTGTGCAGGAGCTGCGGAGGGAGCAGCAGCTGGCTGAGATCGAGGCCCCGAG
GCAGGAGAGGGAGAAAAACGGCAAAGAGGAAGGCGAAGAAAGAAAGACCAAGCCTCCCGTGCAGGAGATGGTAGA
TGAGTTACAAGGCCCTTCTCGTATGATTTCTCTTACTGGGCGCGGTCTGGAGAGAAAATCACTGTTACACCGTC
ATCTAAAGAGCTGCTCTTTTATCCCCCTTCAATGGAAGCCGTTGTCAAGTGGAGAAAAGCTGCCAGGGAAAGCTGAT
CGAGATCCACGGGAAGGCAGGCCTGTTTTAGAAGGCCAGATCCACCCCGAGTTGGAAGGAGTCGAGATTGTCAT
CAGTGAAGAGGGGGCAAGTTCACCGCTGATCACAGTCTTTACTGATGACAAAGGTGCCTACAGTGTGGCCCCCT
GCACAGTGACCTGGAGTACACGGTGACCTCACAGAAGGAGGGCTATGTTCTGACTGCGGTGGAAGGAACCATCGG
AGACTTCAAGGCCTATGCCCTGGCAGGCGTAAGCTTTGAGATAAAAGCTGAGGATGACCAGCCCCCTCCCGGGAGT
CCTCTTATCCCTGAGCGGTGGCCTGTTTCGTTCCAACCTCTTGACCCAGGACAACGGAATTCTGACATTCTCAA
CCTGGTGACGTGTTCTGCAATTTACCACCTGCCTGTCTCCCTGAGAGAGAGCCAGGATGCAGCATGCGAGACTT
ACGTGTTGCTTGACAACGTGAGAAGAGAAGGCCAATGTGGAGTGGTTTCAGTTTCT

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FIGURE 4327

AGCCGCTCTGCCGCCGCCGCCGCGTTGGCCTCGCCGCCCTGCTCGGACACCATGCCACAAGGAGAGTGATCTC
TTCCCTGTTTTACAAATGAGGAGTCCGGAAAGACTTTTTCAGCTCCGAGGAGGAAGAAGCTAACTATTGGAAAGA
TCTGGCGATGACCTACAAACAGAGGGCAGAAAAATACGCAAGAGGAAGTCCGAGAATTCCAGGAGGGAAGCCGAGA
ATATGAAGCTGAATTGGAGACGCAGCTGCAACAAATTGAAACCAGGAACAGAGACCTCCTGTCCGAAAATAACCG
CCTTCGCATGGAGCTGGAAAACCATCAAGGAGAAGTTTGAAGTGCAGCACTCTGAAGGCTACCGGCAGATCTCAGC
CTTGGAGGATGACCTCGCGCAGACCAAGGCCATTAAAGACCAATTGCAGAAATACATCAGAGAGCTGGAGCAAGC
AAATGACGACCTGGAAAAGAGCCAAGCGCGCCACGATCATGTCTCTCGAAGACTTTGAGCAGCGCTTGAATCAGGC
CATCGAAAAGAAATGCCTTCTGGAAAAGTGAACCTTGATGAAAAAGAGAATCTCCTGGAATCTGTTTCAGAGACTGAA
GGATGAAGCCAGAGATTTGCGGCAGGAAGTGGCCGTGCAGCAGAAGCAGGAGAAAACCCAGGACCCCCATGCCAG
CTCAGTGAAGCTGAGAGGACAGACACAGCTGTGCAGGCCACGGGCTCCGTGCCGTCCACGCCCATTTGCTCACCG
AGGACCCAGCTCAAGTTTAAACACACCTGGGAGCTTCAGACGTGGCCTGGACGACTCCACCGGGGGACCCCCCT
CACACCTGCGGCCCGGATATCAGCCCTCAACATTGTGGGAGACCTACTGCGGAAAGTCGGGGCACTGGAGTCCAA
ACTCGCTTCTGCGGAAACCTCGTGATCAGTACGATCAGTCCCCAAACCGAACAGGTGGCCAGCCTCTGGGCGGAGCAG
CAAGAACAGAGATGGCGGGGAGAGACGGCCAAGCAGCACCAGCGTGCCTTTGGGTGATAAGGGGTGGACACGAG
TTGCCGCTGGTTGTCCAAATCAACAACCAGGTGTCAGCTCCTGCTGAAGCCTGTTCTTGGTCTTTTCCAGTTT
ATCATACGCGGCCGCTTCTCCTCGTACTGCTGGGTGAGGTTCTCGATCTCCTTCTGGAACCTCTTCTTCCCCTC
TTCCAGAGCTTCCACGGTGCTGGCAAAGTCTGAGCTTCTTCTTCGAGTCGGAGAGCTACAAGGACAGCGTCCA
GGGTAGGGTGAGAGGGGGACCATGAATGGCCCCTGTCCCTGGCCCCACAGACTCTGAGAAGCGAAGACCATGTCT
CCTCGTTGGAGAAACCAATAGCAGGGGAAGCTGGGGGGTCAAGCACCATCGCACCAACACTCCACCGCGATCTG
CCTGCGGGGGATCTCAGCGCAGAGAAGTTGAGAGGACCCATGAAGGAAGCAAGGACACGGGGCAGGCACCTGGAT
GTTGAGAGTGGAGATGTGGCGCTCCAGGTTCTGCTTGGCCTCCATCTCCTCGTCCAGCTGGTCTTGCAGGCTGTT
CCGCTCCTCCTCCAGCTGGCGCAGCTTCGTAGACACGTTGAGCTTCTGCCGGTTTCTTCTTGAAGCAGCTCCTG
CAAAAGGGATGCAAGAGGTCCAGGGACCTGCCCGAGGAAGGCCACCCCCAGGTCCCCTGGATGATGTGGCA
GGACACTCACCTGGGTGTCTGGAGCTGGGAACTGAGGGACGCCACGTCTTGGCCAGCTTAATGGCCTTCCCCT
CGGCCTCGTTAAGCATCCCTGTGACGCTCTCAACTTCATTCTAAGGGTGCCAAGAGACTGGTTAGTCAAAGCCTC
TAGAAGGGGATCCTCGTTGAAAGGAGCCCTTTTTACTCAAACACATGGGCTAGTACTTGAGGTGTTCACTGATT
GAGAAAATACCCGTGAGGTATGGGACTCTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 4328

MEDSGKTFSSSEEEANYWKDLAMTYKQRAENTQEELREFQEGSREYEALETQLQQIETRNRDLLSENNRLRMEL
ETIKEKFEVQHSEGYRQISALEDDLAQTKAIKDQLQKYIRELEQANDDLERAKRATIMSLEDFEQRLNQAIERNA
FLESELDEKENLLESVQRLKDEARDLRQELAVQQKQEKPRTPMPSSVEAERTDTAVQATGSPSTPIAHRGPSSS
LNTPGSFRRGLDDSTGGTPLTPAARISALNIVGDLLRKVGALESKLASCRNLVYDQSPNRTGGPASGRSSKNRDG
GERRPSSTSVPLGDKGLDTSCRWLSKSTTRSSSSC

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FIGURE 4329

GGCTGGGGAAACAGAACTCGCAGAAGTTAAAAAAATGTGCTTGAGGTGCCACTGGAGAATAACAATCATAGCCA
GGATCTGAAGCCTGTCTAGTTTCTCAGCCGCAAATTCTTCCATGTGGGGCGACCTCACAGAGACGGGATGTATGG
GACGGCGGAGTGCAAAGAAAGATCAGCTGGACATCATCTCCATGGCGGAGACAACCATGATGCCAGAGGAGATTG
AGCTGGAGATGGCAAAATTCAGCGTCTCCGGGAAGTCTTGCTCCGCCGGGAGTCTGAGCTCAGGTTTCATGATGG
ATGACATCCAGCTCTGCAAGGACATCATGGACTTGAAGCAGGAGCTGCAGAACTTGGTCGCCATCCCAGAAAAAG
AAAAAACCAAACCTGCAGAAGCAGAGAGAGGATGAGCTAATCCAGAAGATCCACAAACTGGTGCAGAAGAGAGACT
TCTTGGTGGACGATGCGGAGGTGAGCGGTTAAGGGAGCAAGAAGAAGACAAGGAAATGGCTGATTTCTTGAGAA
TCAAGTTAAAACTCTAGACAAAGTAACCAAATCTCCAGCCAGCTCCCGGGCAGAGAAGAAAGCAGAGCCCCAC
CTAGCAAGCCCACGGTGGCCAAAGACGGGGCTGGCACTGATCAAGGATTGTTGCGGGGCCACCCAGTGAACATCA
TGTAAGCCCCACGTGGGGTGCCCTGGGCCATGGGGACCCCCCCCCACCCCTCTTGTCTTTATAGCCCCCATTTTAC
CGGGGCCCCAAGAGCTCTCCAAGGCAGAAGGGGTTGAAGGCAAGCCCGTGAAGTGTACACAGAGGCCATGGGCACGG
CAGGCGGGGCTGGCCACCCTGTACAGAGTGTAGCAGTAGGGAGTCTCTACCGTTCGCATGGTCTCCCCAGAGCA
TGCCGAACCCAGGAGTCTGTCTCACTGTTTATCCAAACACCAGGAAAGGTCTCTCCCTCAAAAAAGCATATCTCCA
CTTCTCTCTAGCTGTATCTAACCCACCGTGTGAATGAACTGGGAGAGGGGCATGCTCCCCAGCTGTGTGTAGTCG
TGACTTCTCAACAATCTAGCACCATGTCGGACACGTTCCCCATCCACCCTCCTAGCTCTGCTCTCAGAGCTAGGC
ACATGGGCACAGGTCCCCCTCCCGTCTGTCTCTCCCAGCAACTGTGCCCTGGAGGGCTCCACATGGCCCCCGTGT
CTCTCGGGCACCACCCATATAGCAGTCCCAGAGGGGCCATCTGTAAAGATCGAGCTTGTGTGTGGTGTCTGTGGTC
ACATCTCCCGCTTCCCCCATCCTGTGTCTGGGCACAGTTCACATCAGGACAGCGTCCATTGTGCTCTCAGTCTG
CCTCAGGTGTGTGCCTGGAGGGGGCCTGGACTGGCATGGATCCAGTGTGCAGAAGAGCCAGCAGGGAACCGGAAG
CTCTGATGTCAAGGCCAGAGCAGTTGAGAATGGGACCCAGAGTAGATGCTGACCTGGGCACTCCACCATTCCGGG
GCCACCACAGAGATGCCAGCAGGATGCCACTTTGCCAGCCGACACACGGACCTTTGTAAAGAACAGCAACAGGC
AGGAGAGGCAGCGTGTGACCAGATTGTGTCCCGTCAATTGGGTGGCATATGTAACTAGCTGCCAAACAACCTTCAA
CCCGTGTAAATTCATGTACATTTGCAACAGCCAGCCCGGTACAGCCTGTGTGACTTCTCTGTATGTGTGTGTGT
CGTGAACCAGCCTAAGTAGTTAGCATAACTCAAGATGCTGATGTGCAGTCACCCATCAGAGAAAATAAAAAATGGAA
ACCACGTTACAGCATTTTAAAAAGTTTTTACTTTTTTTCTTGATTATGGAAGTAATCCATGTACATAGTAAATCA
TTTTAAAAGTACAAAAAGTATGAAGAAGTTTGTCTT

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FIGURE 4330

MSDTFPIHPPSSALRARHMTGPLPSVLSQQQLCPGGLHMAPVSLGHHYPYSSPRGPICKDRACVWCRGHISRFPSS
CVWAQFTSGQRPLCSQSASGVCLEGAWTGMDPVCRRASREPEALMSRPEQLRMGPRVDADLGTPPFRGHHRDASR
MPLCQPDTRTFVKNSNRQERQVRTRLCPVIGWHMLTSCQTTSTRVIHVHLQQPARYSLCDFSVVCVVS

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FIGURE 4331

GGCAGATGTACAGAACTGAAATTCGAATGGCGAGGATGGCAAGAAAAGCTGGCAACTTCTATGTACCTGCAGAAC
CCAAATTGGCGTTTGTCTTCAGAATCAGAGGTATCAATGGCGTGAGCCCAAAGGTTTCGAAAGATGTTGCAGCTTC
TTTGCCTTCGTCGAGTCTTCAATGGAACCTTCGTGAAGCTCAACAAGGCTTCGATTAACATGCTGAGGATTGTAG
AGCCATATACTGCATGGGGGTGCCCCAATCTGAAGTCAGTAAATGAACTAATCTACAAGCGTGGTTATGGCAAAA
TCAATAAGAAGCAAATTGCTTTGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAATACGGCATCATCTGCA
TGGAGGATCTGATTCATGAGATCTATACTGTTGGAAAACACTTCAAAGAGGCAAATAACTTCCTGTGGCCCTTCA
AATTGTCTTCTCCACGAGTTGGAATGAAGAAAAAGACCACCATCTTGTAGAAGGTGGAGATGCTGGCAACAGGG
AGGACAAGATCAACAGGCTTATTAGAAAAATGAACCAAGGTGTCTACCATGATTATTTTTCTAAGCTGGTTGGTT
AATAAACAGTACCTGCTCTCAAATTG

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FIGURE 4332

MYRTEIRMARMARKAGNFYVPAEPKLAFVFRIRGINGVSPKVRKMLQLLCLRRVFNGTFVKLNKASINMLRIVEP
YTAWGCPNLKSVNELIYKRGYKINKKQIALTDNALIARSLGKYGIICMEDLIHEIYTVGKHFKEANNFLWPFKL
SSPRVGMKKKTTHLVEGGDAGNREDKINRLIRKMNQGVYHDYFSKLVG

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FIGURE 4333

ATGATAAATGGTATTTCAGTACTGGACTGTGCCTGAGGAGAGGCTTCAACTGAATGTGGATGTTGATGACCTGGAC
TGTCAGGGTCCACCTCTACCTCCCAGAGCCTCAGAGCCCACAAGACAAAAAACTGAGCCTGTGAAGCGATTAAAA
GTCTGGATCTTAGAGGGAGCTCCAAGGAAAACATAATCCAAAATGCCTCATCTGGGAGGTGAAGCAATGATTGAA
CAAGGATTGCTGAGCTTTGGCAAGGAAGAAAAGGGCACTTGCTGTCAACAGAAAGCAGGTGTTCTGGGAAGACTG
GAGGAGCTGTGGGTGGTGAGGCAGACACTGGGCTTGGCTCTGGAAGCCCGAACCTCAGAACATTAAGCTGAACCAT
CTGAAGCTCCTCCACGAAACAGGATATTTGTTGCAGACACTCAGAGAATCTCCAGAGAAACCTGGCTTAGAGGCC
GTGGATTTCAGGGACATCGCTGAAGCCCTGTGCTGGTGGAATTCCTACTACTGATATCTTGGGCCAGGAACTGCAT
TCTGGGAACCAGCACTGGTACGAGGAGCTGCAGGTACAGCAGGCAGACATGGGGACGACCTGCGCAACACCAAG
CAGGAGATTGCTGAGATCAACCGCATGATCCAGAGGCTGAGATCTGAGATCGACCATGTCAAGAAGCAGCATATT
ATATCTCAGGCATCGGGACAGGTCAGTGCCTATATTCCTTCTTCCCTCCAAGCAGGCAAGCTTCATATTAGTGTCT
CCACTTGCTGGGGAACCTTGA

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FIGURE 4334

GGGAAGGGCGGCCGACCCATATAAGCAGCCTGCGGGGCGTTCCCTCGGGTTGTGGTTGGTGTGCGGGTTTCGGTT
GGAGGACTCGTTGGGGAGGTGGCCTGCGCTTGTAGAGACTGCATCCCCGAGACGATGGCGGAGGGAGATAATCGC
AGCACCAACCTGCTGGCTGCAGAGACTGCAAGTCTGGAAGAACAGCTGCAAGGATGGGGAGAAGTGATGCTGATG
GCTGATAAAGTCCTCCGATGGGAAAGAGCCTGGTTTTCCACCTGCCATCATGGGTGTGGTTTTCTTTGGTGTTCCTG
ATTATCTACTATCTAGATCCATCTGTTCTGTCCGGCGTTTTCTGTTTTGTTAIGTTTTTGTGCTTGGCTGACTAC
CTTGTTCCTTCTAGCGCCTAGAATTTTTGGCTCCAATAAATGGACCACTGAACAACAGCAAAGATTCCATGAA
ATTTGCAGCAATCTAGTAAAACTCGACGCAGAGCTGTGGGTTGGTGGAAACGCCTCTTCACACTAAAGGAAGAA
AAACCTAAGATGTACTTTCATGACCATGATCGTTTTCCCTTGCTGCGGTTGCTTGGGTGGGACAACAAGTCCACAAC
CTGCTTCTCACCTACCTGATAGTGACTTCTTACTATTGCTTCTGACTAAACCAACATGGAATCATTGGAAG
TACATTGCAATGGCCAAGAGGGAGATAAAACAACTTCTCAAACAAAAAGAAAAGAAAACGAATGATTCATCTGC
TTTAATCAGTGTGATTAATGCAGCACCCATTGCCCGGGAACCGTTTCTGCTGTACTATCTGGATACTAAAATGT
TACGGAAGTAGCTCTTTGTTCTCCCTCACTCTGCCCTTAGTTAATAGAAATTCAGACTCGCCAAGTAAGGCTTCG
TGATAGTGTCTTTCATGTCGCTATAGTTGAGCGCGTTCTTAGCAGTTGGCTTCATGGACAACCTCATTAGTGTTT
TGACTTTTCTTACCCAGCGTTAATTGAATTCTTGCTTTTAGACAACCTTCTTTTTGTAGTGGTGAACCTTGCCCT
TTAGTACCTTCAAGTGAATCTGGATAATTGTTTCATCTTTGCTTTAGCTTAGATACCATGTAGTGGTCTGTGGCT
ACAGGAAGCTGGTTCTGTCTGCTTCCACAGTCTGCTTAAAAAACTGTCTGACTTCGTGAATATAGAGACCAAGTT
TACCACTTCTGATGAAGAGACCAATTAAGATTCACTTCTGTTTCTTTCCAGTGGGAGAAGAGTCCCCAT
GAAATAAGATGAAACTGATTCCATGCACTAGTACATGTAGGCTTCTCCCTTGTCGAAAGCTTAGCAATTTGTAGG
AACTTTGATCTTTTTGTCCAAGAAAAGGAATGTCTGACAGGCTTAAGCTTTCGTCCTTGCACCTTAGACTCGA
AGTTAGTAAATCCTTAAAGGCTTTTTAATAGCAGACTTCCAAAAGATTGCATTTAGGATTTCTAGCATGCTTTTA
ATTCAGATTTTCAGCTGACATTAGCTATAGTATACAGTAGGTTAAGACTCATGTCTATGACTTTCACTCTAAGA
CTGGCAAAAGGACAGCAGTCTTCTATGTTTAGTCAATATTCATTTAGTAGAAGATAATCTTATCTAATTTTTGA
GACCAGAATAAGCCTTTTAAGGTAAACCTCAAAATTATCATTTTATGGTAATACTGACCATTTTAGTCCCTAGG
TTTGACATGGGAGATAGTGACTACACTGGTGTCTGACTTTTTTCTAGAGATTTCTCCCTGAAAAATACAAGGGC
TGTTGGTGAGAGCAGACTTGAGGTGATGATAGTTGGCTCTGGTCTACAAAGATTCATAACTCCTTGGAAGCT
TCTTATAATCATTCTTAACCTCTTGGTAGCTAGAAATTTAGAGTAGTTGAAATCTTAGGAATGAACCTCTGAGG
GCCAAAAATGTGACTGACGGGAACAATTCTTAACTGATTAAGTCTGTAATATAGTTTTGTGAATTTATTGC
ACTGATGTTGTACCTTGTGGTATATCTGTCCCTATTAAATAAGTGTGTTTTCTCTCTTTAATATTGCTGTGAA
CAGTGGTGCCCATTTAGCATATGTTTGATTTTTTTTTATTATTTTATAAGAAAACACGTTAATTTTACCTTAC
TTTCATTGTAAATAAGCCTGTCTTCTATCTGGATTTTTGTGTGCATACATTTCTACTGATTAAGTACTTTTG
CAGTTTTAATCCTGTATTATTTCTTCTACTTTGTTTTGTGTAAAGGGGAAAAAATAAAAAAGCTGGAATCTTC
ATGTCTC

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FIGURE 4335

GCCCCAGGAGCCCCGGCGGGTCCGGGACTCCCGTCCGTGCCGGTGCGGGCGCCGGCATGTGGCTGTGGGAGGACCA
GGGCGGCCTCCTGGGCCCCCTTCTCCTTCCGTGCTAGTGCTGCTGCTGGTGACGCGGAGCCCCGGTCAATGCCTG
CCTCCTCACCGGCAGCCTCTTCGTTCTACTGCGCGTCTTCAGCTTTGAGCCGGTGCCCTCTTGACGGGCCCCTGCA
GGTGCTCAAGCCCCGGGACCGCATTTCTGCCATCGCCACCGTGCGCGCAGCCACGACGCGCCGAGAACACGCT
GGCGGCCATTTCGGCAGGCAGCTAAGAATGGAGCAACAGGCGTGAGATTGGACATTGAGTTTACTTCTGACGGGAT
TCCTGTCTTAATGCACGATAACACAGTAGATAGGACGACTGATGGGACTGGGCGATTGTGTGATTTGACATTTGA
ACAAATTAGGAAGCTGAATCCTGCAGCAAACCACAGACTCAGGAATGATTTCCCTGATGAAAAGATCCCTACCCT
AAGGGAAGCTGTTGCAGAGTGCCTAAACCATAACCTCACAATCTTCTTTGATGTCAAAGGCCATGCACACAAGGC
TACTGAGGCTCTAAAGAAAATGTATATGGAATTTCTCAACTGTATAATAATAGTGTGGTCTGTCTTTCTTGCC
AGAAGTTATCTACAAGATGAGACAAACAGATCGGGATGTAATAACAGCATTAACTCACAGACCTTGAGCCTAAG
CCATAACAGGAGATGGGAAACCACGCTATGATACTTTCTGGAAACATTTTATATTTGTTATGATGGACATTTTGCT
CGATTGGAGCATGCATAATATCTTGTGGTACCTGTGTGGAATTTTCAGCTTTCTCATGCAAAAGGATTTTGATC
CCCGGCCTACTTGAAGAAGTGGTCAGCTAAAGGAATCCAGGTTGTTGGTTGGACTGTTAATACCTTTGATGAAAA
GAGTTACTACGAATCCCATCTTGGTTCCAGCTATATCACTGACAGCATGGTAGAAGACTGCGAACCTCACTTCTA
GACTTTTCAGGTGGGACGAAACGGGTTTCAGAAACTGCCAGGGGCCTCATAAGGGATATCAAATACCTTTGTG
CTAGCCCAGGCCCTGGGGAAATCAGGTGACTCACACAAATGCAATAGTTGGTCACTGCATTTTTTACCTGAACCAA
GCTAAACCCGGTGTGTCACCATGCACCATGGCATGCCAGAGTTCAACACTGTTGCTCTTGAAAATCTGGGTCTG
AAAAAACGCACAAGAGCCCCCTGCCCTGCCCTAGCTGAGGCACACAGGGAGACCCAGTGAGGATAAGCACAGATTG
AATTGTACAATTTGCAGATGCAGATGTAAATGCATGGGACATGCATGATAACTCAGAGTTGACATTTTTAAACTT
GCCACACTTATTTCAAATATTTGTACTCAGCTATGTTAACATGTACTGTAGACATCAAACCTTGTGGCCATACTAA
TAAAATTATTAAAGGAGCACTAAAGGAAAACCTGTGTGCCAAGCATCATATCCTAAGGCATACGGAATTTGGGGA
AGCCACCATGCAATCCAGTGAGGCTTCAGTGTACAGCAACCAAATGGTAGGGAGGTCTTGAAGCCAATGAGGGA
TTTATAGCATCTTGAATAGAGAGCTGCAAACCACAGGGGGCAGAGTTGCACTTTTCCAGGCTTTTTAGGAAGCT
CTGCAACAGATGTGATCTGATCATAGGCAATTAGAACTGGAAGAACTTCCAAAAATATCTAGGTTTGTCTCAT
TTTACAAATGAGGAACTAAACTCTGTGGAAGGGAAGGGGTTGCCTCAAAGTCACAGCTTAGCTGGGCACAGTG
GCTCATGCCGATAATCCAGCAATTCAGAAAGCTGAGGCAGGAGGATTACTTGAGGCCAGACTGGGCAATATAGC
AAGACCCCATCTCTAAAAAATTAGGCATGGTGGTGCATGCCTGTATTCCCAGCTACTCAGGAGGTTGAGGTGGGA
GGATCACTTGAGCCAGAAGTTCAAGGCTGCAATGAGCCATGATTACACCACGGCACTACAACCTTGGTGGCACA
GTGAGAACCTGACTCTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4336

MWLWEDQGGLLGPFSFLLLVLVVTRSPVNACLLTGS L FVLLRVFSFEPVPSCRALQVLKPRDRISAI AHRGGSH
DAPENTLAAIRQA AKNGATGVELDI EFTSDGIPVLMHDNTVDRTTDGTGRLCDLT FEQIRKLNPAANHRLRNDFP
DEKIPTLREAVAEC LNHNLTIFFDVKGHAHKATEALKKMYMEFPQLYNNSVVC SFLPEVIYKMRQTD RDVITALT
HRPWSLSHTGDGKPRYDTFWKHFI FVMMDILLDWSMHNILWYLCGISAF LMQKDFVSPAYLKKWSAKGIQVVGWT
VNTFDEKSYYESHLGSSYITDSMVEDCEPHF

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FIGURE 4337

CTCTTTCCGCCATCTTTCCGCGCCGGCCACAATGGTGCGCATGAATGTCCTGGCAGATGCTCTCAAGAGTATCAA
CAATGCCGAAAAGAGAGGGCAAACGCCAGGTGCTTATTAGGCCGTGCTCCAAAGTCATCGTCCGGTTTCTCACTGT
GATGATGAAGCATGGTTACATTGGCGAATTTGAAATCATTGATGACCACAGAGCTGGGAAAATTGTTGTGAACCT
CACAGGCAGGCTAAACAAGTGTGGGGTGATCAGCCCCAGATTTGACGTGCAACTCAAAGACCTGGAAAAATGGCA
GAATAATCTGCTTCCATCCCGCCAGTTTGGTTTCATTGTACTGACAACCTCAGCTGGCATCATGGACCATGAAGA
AGCAAGACGAAAAACACACAGGAGGGAAAATCCTGGGATTCTTTTTCTAGGGATGTAATACATATATTTACAAATA
AAATGCCTCATGGACTCTGGTGCTTCCACTTGGTCGTTTTGAGCCTTTACAGCAGTGTAGCCACAGCTTCTGCGG
CAGCATGCAGTTGCTTCGTTTATCGGTGAATGCGATTCCCAGATTCAAGTAGTTCTCGTGCCTCAGCCTCCTGAG
TAGCTGGGATTACAGGTGTGTGCCACCATGTCTGGCTGATTTTTGTATTTTTAGTAGAGGTGGGGTTTACCATG
TTGGCCAGGCTGGTCTCGAACTCCTGATCTCAAGTGATCTGCCTGCCTTGGTCTCCCAAAGTGCTGGGATTACAG
GTGTGACCACCACGCCCTGCCTTAAGAATTGTTCCAAGAGAATCTGGTGCCACTTGACAGGTGCCCATTTGAAGTGC
AATGGGCACTGTTGATCACTGAGGAGGTAGTGGGTGCTGACCCGGTGCTGGGGCCTGTCCCCTAGTCTCTGCTTT
GCCCTTGGCTAGCTAGGTGGTGTGCCAAGTGGGGAGAGAAGCTACCTTATTAAGGGGCATGGATCAGCTTCCTGA
AAGGAGGGCCTGCCTCTGTAAAGATATGGGAAGTCGCTGAGAATGTTACAGAACGGCCCTAGAGATGGGGCAGATA
ACGGCCCCCATTTGTGAGAAGTGAGTTGGGAGGCATGTTTGGGGCCTCTGATGTTTGGGAGGCTGTGGGTAATTA
ACATGAGTTTTGGGGTCCAGCAGCAGAATTCAGGTTTCTCTTCCACTCAGTAACCTCAGCATCCGTATCTGTAA
TGGGAATGATACAAAACCTATCCCAAGTTGAGGGAAAAATGAGATTGTGTAAAGCGCACTTGGCACATGACAGT
CACAAGCATGGGGACAGTGAGTCCAGAAGGATTTTCTTATGCCAGCATTGTAAGCCCTAGGATCACAGGGCTCTG
GCTTGTTTAACCATCGTGTCTCTGGTCCCTAGCCTGCAAACCTGGTGTGTAGGGATGCCTCAGTCGCTTACATGT
TGATTGAGTGAATCGTCGGTTTCTTCTGGACACTGACTTCAAAAATAAA

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FIGURE 4338

CGCAGAGTCCCCGGGCCAAGATGGCTGCGCGGTGCTCCACACGCTGGTTGCTGGTGGTTGTGGGGACCCCGCGGC
TGCCGGCTATATCGGGTAGAGGGGCCCGGCCGCCAGGGAGGGCGTGGTGGGGGCATGGCTGAGCCGCAAGCTGA
GCGTCCCCGCCTTTGCGTCTTCCCTGACCTCTTGCGGCCCCGAGCGCTGCTGACATTGAGACCTGGTGTACAGCC
TTACAGGAACAAACATAACCCCTTTCACTTTGTACTGCCTCCTTCCACACGAGTGCCCCCTTTGGCCAAAGAAGATT
ATTATCAGATATTAGGAGTGCCTCGAAATGCCAGCCAGAAAGAGATCAAGAAAGCCTATTATCAGCTTGCCAAGA
AGTATCACCCCTGACACAAATAAGGATGATCCCAAAGCCAAGGAGAAGTTCTCCAGCTGGCAGAAGCCTATGAGG
TTTTGAGTGTAGAGGTGAAGAGGAAGCAGTACGATGCCTACGGCTCTGCAGGCTTCGATCCTGGGGCCAGCGGCT
CCCAGCATAGCTACTGGAAGGGAGGCCCACTGTGGACCCCGAGGAGCTGTTGAGGAAGATCTTTGGCGAGTTCT
CATCCTCTTCACTTTGGAGATTTCCAGACCGTGTGTTGATCAGCCTCAGGAATACTTCATGGAGTTGACATTCAATC
AAGCTGCAAAGGGGGTCAACAAGGAGTTACCCGTGAACATCATGGACACGTGTGAGCGCTGCAACGGCAAGGGGA
ACGAGCCCCGGCACCAAGGTGCAGCATTGCCACTACTGTGGCGGCTCCGGCATGGAAACCATCAACACAGGCCCTT
TTGTGATGCGTTCCACGTGTAGGAGATGTGGTGGCGCGGCTCCATCATCATATCGCCCTGTGTGGTCTGCAGGG
GAGCAGGACAAGCCAAGCAGAAAAAGCGAGTGATGATCCCTGTGCCTGCAGGAGTCGAGGATGGCCAGACCGTGA
GGATGCCTGTGGGAAAAAGGGAATTTTCATTACGTTACAGGTGCAGAAAAGCCCTGTGTTCCGGAGGGACGGCG
CAGACATCCACTCCGACCTCTTTATTTCTATAGCTCAGGCTCTTCTTGGGGGTACAGCCAGAGCCCAGGGCCTGT
ACGAGACGATCAACGTGACGATCCCCCTGGGACTCAGACAGACCAGAAGATTCCGATGGGTGGGAAAGGCATCC
CCCGGATTAACAGCTACGGCTACGGAGACCACTACATCCACATCAAGATACGAGTTCCAAAGAGGCTAACGAGCC
GGCAGCAGAGCCTGATCCTGAGCTACGCCGAGGACGAGACAGATGTGGAGGGGACGGTGAACGGCGTCACCCTCA
CCAGCTCTGGTGGCAGCACCATGGATAGCTCCGCAGGAAGCAAGGCTAGGCGTGAGGCTGGGGAGGACGAGGAGG
GATTCCTTTCCAACTTAAGAAAATGTTTACCTCATGATATCCCAGCCGAGGAAAAAGATCCACTGGAACTAGG
CCGGGAAGCAGCAGCCCCCTCCAAGGGCCAGGGCACCTGGGAGACGGGAGGATTCCAGAACAGCAGCACTGAGCTC
CCACCCGCAGAGCCTCTGGACGGCCTTGGCAACAGCAAAATCATGGGACAACACCTCTCTCCACGGAAAGGTCAC
AGTGGACAGCCCCGGGCAGTAGGATGCAGCCCCAGAGGCTGGTGGCAGTTTCTGTCCATTGGTAGGTGACGGCCC
CTGGCTCAGGCAGAGGGAGATGGTTAGACTCTTGACAGGCTAAAACTCTAATTTGGAATTGAATATTGTGGATAT
CTTAGTTAAAGGCCATGCTTACAGCTTAGAAATGAAGCCTTAAGCTGCATCAAGTTACGAAGTGATTAATTTCT
TCTCAGCAAACCTCCGGGAGGTTCCAGAATGAGTTCTTCTGACAGGTTGTCTTCACTGGGAGCGTGGGGCCCCC
AGGCCCCACCAGCACCGTCTCTCCCTAATGAGGGGCCCTGCCGAGGCATCAGCTGCTCTGCTCAGTTAGTTTTTA
TTCCCGGGGTACCAAGCAGCTGCACAGTCGGTGCCTGGGAGGCACGTAGAGGCCCAGAGAGTCCCTGGGGGTTCT
GCTCTGACCGTGTGGGTGGTGTATCCTTGTACAGGATGTACAGTCCTTGCTCCACCCCATCCGGGATGGCCGCCTG
TCCCTGACTATTGAGTCTGTGTTGTGTAAGCCAGGCATGGAGGGCTCCTGCCCTTCTGCTGAGCCACAGCCCATT
GCAGCACTGTGCTGGCCAGACTTCAGCTGCCTTGGGAACCTGAAGCCCTGCCACTGTTGCTAGTCAGGGGCTTGGT
TCTCCCACTTACACTGTTGACATCTATTTTCTGAAGTGTGTTTAAATTATTTCAGTGCTAATCATTGTTTTTCT
TTGTAAATGTTGATTGAGAAAAGGAAAGCACAGGCTAAGCAGTTGAAGGTTCCCCACCATTTCAGTGAGAGCAGAA
CCCCCATTTCCCAGCCTCTGCTGGTAGCATGTGCGAGTTTCCATGTGTTTCAGGATCTTCGGGCTGTGTTAGAC
AGGTTAATGAAGAACACTTCTCAACAGTTTCTTTTTTGTTCCTTTATAATTCACTAAAATAAAGCATCTATTA
GTGTCTG

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FIGURE 4339

MAARCSTRWLLVVVGTPRLPAISGRGARPPREGVVGAWSRKLSVPAFASSLTSCGPRALLTLRPGVSLTGTKHN
PFICTASFHTSAPLAKEDYYQILGVPRNASQKEIKKAYYQLAKKYHPDTNKDDPKAKEKFSQLAEAYEVLSDVK
RKQYDAYGSAGFDPGASGSQHSYWKGGPTVDPEELFRKIFGEFSSSSFGDFQTVFDQPQEYFMELTFNQAAKGVN
KEFTVNIMDTCERCNGKGNPGTKVQHCHYCGGSGMETINTGPFVMRSTCRRCGGRGSIIISPCVVCRGAGQAKQ
KKRVMIPVPAGVEDGQTVRMPVGKREIFITFRVQKSPVFRDGADIHSDLFISIAQALLGGTARAQGLYETINVT
IPPGTQTDQKIRMGKGIPRINSYGYGDHYIHIKIRVPKRLTSRQQSLILSYAEDETDVEGTVNGVTLTSSGGST
MDSSAGSKARREAGEDEEGFLSKLKKMFTS

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FIGURE 4340

ATGGTGGACAAGAAACTGGTGGTGGTTTTTCGGAGGCACAGGTGCCCAGGGTGGCTCCGTGGCCCCGCACACTCCTG
GAAGATGGGACATTCAAGGTTTCGAGTGGTGACCCGAAACCCTAGGAAGAAGGCAGCAAAGGAGCTGAGGCTGCAA
GGTGCAGAAGTAGTGCAGGGAGACCAAGATGACCAGGTCATCATGGAGCTGGCCCTGAATGGGGCTTACGCCACC
TTCATCGTGACCAATTACTGGGAGAGCTGCAGCCAGGAGCAGGAGGTCAAGCAGGGGAAGCTGCTCGCTGATCTG
GCCAGGCGCCTGGGCCTCCACTATGTGGTCTACAGCGGCCTGGAGAACATCAAGAAGCTGACGGCAGGGAGATTG
GCCGCCGCGCACTTTGACGGCAAAGGGGAGGTGGAGGAATATTTCCGGGACATTGGCGTTCCCATGACCAGTGTG
CGGCTGCCCTGCTATTTTGAGAACCTCCTCTCCCACTTCTTGCCCCAGAAAGCCCCAGACGGAAAGAGCTACTTG
CTGAGCTTGCCACAGGTGACGTTCCCATGGATGGCATGTCCGTGTCTGACCTGGGTCCTGTGGTGCTCAGCCTT
TTGAAGATGCCAGAAAAATACGTCGGCCAGAACATCGGGCTGAGCACTTGCAGGCACACGGCCGAGGAGTACGCT
GCCCTGCTCACCAAGCACACCCGCAAGGTCGTGCACGATGCCAAGATGACTCCTGAGGACTACGAAAAGCTTGGC
TTTCCCGGTGCCCCGGGACCTGGCCAACATGTTCCGTTTCTATGCCCTGAGACCCGACCGTGACATCGAGCTGACC
CTGAGACTCAACCCCAAGGCCCTGACGCTGGACCAGTGGCTGGAACAGCACAAAGGGGACTTCAACCTGCTGTGA

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FIGURE 4341

MVDKKLVVVFGGTGAQGGSVARTLLEDGTFKVRVVTRNPRKKAAKELRLQGAEEVVQGDQDDQVIMELALNGAYAT
FIVTNYWESCSQEQEVKQGKLLADLARRLGLHYVVYSGLENIKKLTAGRLAAAHFDGKGEVEEYFRDIGVPMTSV
RLPCYFENLLSHFLPQKAPDGKSYLLSLPTGDVPMDGMSVSDLGPVVL SLLKMPEKYVGQNI GLSTCRHTAEEYA
ALLTKHTRKVVHDAKMTPEDEKLGFP GARDLANMFRFYALRPDRDIELTLRLNPKALTLDQWLEQHKGDFNLL

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FIGURE 4342

GACCAGAGGAGCGAGAGCAGCAAGAACCACACCCAGCAGCAATGTCAGCGGAAGTGGAAACCTCAGAGGGGGTAG
ACGAGTCAGAAAAAAGAAGCTCTGGGGGCCCTAGAAAAGGAGAACCAAATGAGAATGGCTGACCTCTCGGAGCTCC
TGAAGGAAGGGACCAAGGAAGCACACGACCGGGCAGAAAACACCCAGTTTGTCAAGGACTTCTTGAAAGGCAACA
TTAAGAAGGAGCTGTTTTAAGCTGGCCACCACGGCAGTTTACTTCACATACTCAGCCCTCGAGGAGGAAATGGAGC
GCAACAAGGACCATCCAGCCTTTGCCCCCTTTGTACTTCCCCATGGAGCTGCACCGGAAGGAGGCGCTGACCAAGG
ACATGGAGTATTTCTTTGGTGAAAAGCTGGGAGGAGCAGGTGCAGTGCCCCAAGGCTGCCAGAAGTACGTGGAGC
GGATCCACTACATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCCATGCATACACCCGCTACATGGGGGATCTCT
CGGGGGGCCAGGTGCTGAAGAAGGTGGCCAGCGAGCACTGAAACTCCCCAGCACAGGGGAAGGGACCCAGTTCT
ACCTGTTTGAGAATGTGGACAATGCCCAGCAGTTCAAGCAGCTCTACCGGGCCAGGATGAACGCCCTGGACCTGA
ACATGAAGACCAAAGAGAGGATCGTGGAGGAGGCCAACAAAGGCTTTTGAGTATAACATGCAGATATTCAATGAAC
TGGACCAGGCCGGCTCCACACTGGCCAGAGAGACCTTGGAGGATGGGTTCCTGTACACGATGGGAAAGGAGACA
TGCGTAAATGCCCTTTCTACGCTGCTGAACAAGACAAAGGTGCCCTGGAGGGCAGCAGCTGTCCCTTCCGAACAG
CTATGGCTGTGCTGAGGAAGCCCAGCCTCCAGTTTATCCTGGCCGCTGGTGTGGCCCTAGCTGCTGGACTCTTGG
CCTGGTACTACATGTGAAGCACCCATCATGCCACACCGGTACCCCTCCTCCCGACTGACCACTGGCCTACCCCTTT
CTCCAGCCCTGACTAAACTACCACCTCAGGTGACTTTTTAAAAAATGCTGGGTTTAAGAAAGGCAACCAATAAAA
GCCAGATGCTAGAGCCTCTGCCTGACAGCATCTCTCTATGGGCCATATTCCGCACTGGGCACAGGCCGTCACCC
TGGGAGCAGTCGGCACAGTGCAGCAAGCCTGGCCCCCGACCCAGCTCTACTCCAGGCTTCCACACTTCTGGGCCC
TAGGCTGCTTCCGGTAGTCCCTGTTTTTGCAGTACATGGGTGACTATCTCCCCTGTTGGAGGTGAGTGGCCTGTA
AGTCCAAGCTGTGCGAGGGGGCCTTGCTGGATGCTGCTGTACAACCTTCTGGGCCTCTCTTGGACCCTGGGAGTGA
GGGTGGGTGTGGGTGGAAGCCTCAGAGGCCTTGGGAGCTCATCCCTCTCACCAGAAATCCCTCTAACCCCTTGGG
TGCGGTTTGCTCAGCCCCAGCTTATCTCCTCCTCCGCGCTGTGTAAATGCTCCAGCACTCAATAAAGTGGGCTTT
GCAAGCT

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FIGURE 4343

MSAEVETSEGVDESEKKNSGALEKENQMRMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKLATTALY
FTYSALEEEMERNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERIHYIGQNEPELLV
AHAYTRYMGDLSGGQVLKKVAQRALKLPSTGEGTQFYLFENVDNAQQFKQLYRARMNALDLNMKTKERIVEEANK
AFEYNMQIFNELDQAGSTLARETLEDGFPVHDGKGDMRKCPFYAAEQDKGALEGSSCPFRTAMAVLRKPSLQFIL
AAGVALAAGLLAWYYM

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FIGURE 4344A

CGGCCTGGTCCGGGCCATGTCCGCGTGAGGACCCCGCCGCTGTGCGCGCTCCCGTTCCGGCCCTGGCCCCCTCTGC
 CCGGCAGCGCCGCGCACCATGGGCTCCATTCTCAGCCGCCGCATCGCGGGGGTGGAGGACATCGACATCCAGGCG
 AACTCGGCCTATCGCTACCCCTCCGAAGTCCGGAAACTACTTTGCTTCGCACCTTTTTTCATGGGAGGAGAGAAATTC
 GACACCCCCACCCTGAAGGTTACCTCTTTGGAGAGAACATGGATCTGAACCTTCTGGGCAGCCGCCCGGTCCAG
 TTTCCCTACGTCACTCCTGCCCCCACGAGCCCGTGAAGACGCTGCGGAGCCTGGTGAACATCCGCAAGACTCC
 CTGCGGCTGGTGAGGTACAAAGACGATGCCGACAGCCCCACCGAGGACGGCGACAAGCCCCGGGTGCTCTACAGC
 CTGGAGTTACCTTCGACGCCGATGCCCGCTGGCCATCACCATCTACTGCCAGGCATCGGAGGAGTTCTTGAAC
 GGCAGGGCAGTATACAGCCCCAAGAGCCCCCTCGCTACAGTCCGAGACCCTCCACTACAAGAGAGGGGTGAGCCAG
 CAGTTCTCCCTGCCCTCCTTCAAGATTGACTTCTCGGAATGGAAGGATGACGAGCTGAACCTTGACCTGGACCGG
 GCGTGTTCAGTAGTCATCCAGGCTGTGGTGGACGAAGGAGATGTGGTGAAGTGACTGGCCACGCCACGTCG
 CTCTTGGCTGCCTTTGAAAAGCACATGGACGGCAGCTTCTCTGTGAAGCCTTTAAAGCAGAAGCAAATTTGGAC
 CGGGTCAGCTACCTCCTGCAGGAGATCTATGGCATTGAGAACAAGAACAACCAGGAGACCAAGCCCTCGGACGAC
 GAGAACAGCGACAACAGCAACGAGTGTGTGGTGTGCTGTCCGACCTGCGGGACACGCTGATCCTGCCCTGCCGC
 CACCTGTGCTCTGTACCTCCTGCGCCGACACGCTGCGCTACCAGGCCAACAACCTGCCCCATCTGCCGGCTCTTT
 CCGGGCCCTCCTGCAGATCCGGGCGGTGCGGAAGAAGCCAGGAGCCCTGTCCCCCGTGTCTTCAGCCCCGTCT
 GGCCAGAGCCTGGAGCATGATGAGCACTCTGTCCCTTTAAAAAATCAAAGCCGCACCCCGCTCCCTGGCCAG
 CAAGAAACCTAAAAGGGAACAAACTCTGACAGCGTCCACCTGGCTACGAGCCCATCTCGTGTCTGAGGCGCT
 CAACGGCCTCCGGGCTGTCTCCCGGCCATCCCTCGGCCCTCTTTATGAAGAAATCACCTATTAGGCATCTC
 GGACGGCCTGTCCAGGCCAGCTGTCCCTCGCGGCTATCGACCACATCCTGGACAGCAGCCGCCAGAAGGGCAG
 GCCGCAGAGCAAGGCCCCGACAGCACCCCTACGGTCCCCGTCTTCCCCCATCCACGAAGAGGATGAGGAGAAGCT
 CTCCGAGGACGTGGACGCCCTCCCCACTGGGTGGCGCAGAGCTGGCCCTGCGGGAAAGCAGCTCCCCTGAGAG
 TTTATAACAGAAGAGGTTGATGAGTCGTCGTACCCACAGCAAGGGACCCGAGCAGCTTCCATTGAGAATGTCT
 GCAGGACAGCAGCCCCGAGCACTGTGGCCGAGGCCACCTGCTGACATCTACCTGCCAGCCCTGGGGCCCGACTC
 CTGCTCTGTTGGTATAGACGAGTAAGCCGGTACGTGACCTCCCAGACGCGCTTCGGGGGCTCTGACGCGCTCT
 TGGAGAGAGGAGCCCTCCCCTGCTCTCTGGCGGGGGTTCTTCTGGTTTTTGGGTCTTCGTCCGCATCCGCATCT
 TCCAGGGGGCCCTGGATTCCGAATCCAGAGCTCTCCAGTGGCTGCTGCACCTTCCCCAGAAAGTGGCCTCCTGG
 GGGTCTGACTTTCCGGGGCCAGAGGTCTCTCCATCTGGACTAGGCGCCGGTCAGGCTCTTCTCCAGCCTTGA
 GGGGCCCTGGAACAGTCCCAGCCAGGCAGGGAGACAGACACAGCCAGGTGCGCCAGAGCCACTGTCCACTGCG
 GGAGGCAGGAGCTTGAGGGATGAGGGCAGCACCGTGGAGGGAACCCAGGGAGACATGGGGTGAGCGTCCCAAGG
 GGAGAGGCCTGGGCCTGGCCTTGTTCGGATGGTCCCACCATGAGTTCGCATCGGTCTGCAGCAGACACGTTAG
 GACGCTCAGCAGGTCCACTCCCGTGTTCGGTCTGGCTTTAACAATTCATGGGGAAAGAATGCGCCCCGATTGG
 GAGAGCCCCCTGGATCACGTCTTCCCAAGCTCAGTCCCTGTCTCTTGGAGGGAGTCCGTCTCGAGGGGCCCTCTG
 GTGCCAGGGGAGAGTATCTTGCGTCTGTCTGAGGGCGTCCGCTCACACAGCCACCTGCTCCCCCGCTCCCTC
 CTTCCCTTGTACGATGGCCACCGTGGGCCTGGCATCACCATGGGCCTGGCACACAGTCCCTCGTGGGCTGCCTT
 TGTGCCATGAGCCCACTGCTGCCGACTCACCTGTCCCTCCCAGTACTGGAACCTTCTGGAACACCAGCACTAAAA
 GATAGGAGGCCCTGTGAGGTTGGCATCCCCATCCCCCAAGAGGGCGCCCTCTACCAGGGTGGCCAGGTGAGT
 GTTTTACAGAAGGCGGCTCTGTCCAGGCAGTGGTTCGCACCTATAAGCCCCGTACTTTGGGAGACCGAGGGGATA
 GATCACTTGAGCCCAAGGAATTCAGATCAGTGTAGAAAACATAGACCCCTCTCTATGAAAAATAAAAAATTGGC
 TTGGGCGTGGTAGCTTGTGCTGTGGTCCCAGCTACTCAGGGGTGCTGAGGTGGGAGGATTGCCGGAGCTGGGGA
 GGTCAGGGCCCACTCCAGCCTGAGACGCTGTCTCAATAAAAAAAAAAATACACACACACCCACCCACCCACTCCAGC
 CTGAGACCTGTCTCAAGAAAAAAAAAATACACACACACACACACACACACACCGGGGGAGAGAGAGAAG
 GCAGCTCCAGGAGTGCCACCAAAATGTAGGCAGACGGATTGGGGACCCCTGTGCTTCCCAGAGGGTCTTGGCACA
 CAAGCTGCGTGCAGCTCTGGTCTGCCGAGGCCATGCAGCCTGCTGGGAGGTGCTGGCCGGGGGTGCAGGCTCT
 AAGAGGCCCTTTCCCTTGGGTGGACTTGAGCCGGGTGAGGGAGAACTTCGCTTCTTTTACTGCGCTCTGCATT
 CCCATGAACCTCTGTCTTCTTGGCCAGCGAGTCCCTCTGTTGACCCCTGTCTGAGCCATTATACCCCTAGAT
 TGAACAGTCAGCACCTTTAGACGGCCCCGGCTGCGCATCGGTGGAAGGTGCCGTGCGAATGTCACGATTAG
 GTCAAGCTTCCGGAGCTGGGGAGTGAGGTGTGATCTAGAACAGGGCTCACAGCCTCGGAAACCTGCTCTCGCCG
 CGCCCCCGAAGAAAATAGACGCCCTTACCAGGAGAGTGGGGCTGGGCCGTGCTGCTGGGAGCCATGTGTCTAG

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FIGURE 4344B

GGCTGGTGGCTGGGTGTCAGGCAGCCCTGAGGCCATGCTGGCCCCGTCCCAGGCTCTGCACCAGCACCAATTGCCC
AAGCCCCAGGGACGCCAGACCCATCTGGGGACAGCGCCCGGCGGCGTCTGTCAGGCCACAGTCTGGGCATTGGGG
CTCTGTGGGAGGCTCCTCTCTTTGCCCTTGACGTAGCCATCCGGGGGCTACTCTGAGCACGGGCTTGTTCTCACCC
AGGGCCGCTCCCCACCCCTGCACCCTGGGTTGACCGAGTTCACCCTAACCAGCCGTAAGAACCCTTGGCAGGAC
AGTGGCTGGCCACATCCCAGGAAACCGGAACCAGGGCAAGGGCAGGAGGCCAGAGGGCATCCACCGCGGTGCCG
TGTCGCGCTCTGACTCGGGGCTGCAGATCTGCTGTGGGTGTCCGGGGATCTGGGATCGTCTGTCCCAAGAGGGAC
ACAGCGTATTTGGCACAGTTAGGGAGTCCCCGGGGCCTTGGTGTGCTCACATCTGAGTGAATGCTGTTGTGGCCA
CAGGCGGCGGGAGTGGGGGTGCTGGATGGCCCAGCCCTCTGGGGCTCCAGATCGGTAGGAGCGGGTGGCGTGGC
ACCAGGCATCCGAGTGTGACCTCCTCCCTCTGCTCCCACCTGCAGGACGGCCACCTCCATGGAGACGGCCAC
GGCCTCGCCACCACCAGCCCCACCTGGCCTCCACTTGGTGGCCCCAGCCCCGATCCAGCGCCGCCGAGCTGACC
CCACTCTGAGAGCCTGGCCGAGCTGGCAGCATGGAGCCCTCGGCTCCCCAGACTTTGCCGAGGGGCTGCTCCGGA
CCCCGTTGTGAGCCGGCCTCCTGTCTGCATGCCCCCTGTGGCCACCAGGCTCCGAGGGGCGTGGTGACTCTTGA
TCAAAGAGCACAGTGAAGTGTCCCTTCTGAGTCTCCCTTTTCTACAGTTGATATATTTGTAAGTGGTACAAGATG
AAGGACAGCAGCTTTCCATCCCTAGTTTCAGAGCCCCCGTTCCCCAGGGTCTGTGGGCTGAGCGGCTGGGGCTGG
GGCTGCCCACGTGTGGCCTCCGCTGGCTCTGCCTGCTCCTGCAACAGTGCGGTCCCTGCCCGGAGAACTCAGGAG
GCCTGCAGAAGAGAACTGATTGGTGGTGAAGCACCATCTTACAGATGTTTCAGGGGCAGTGGGGGGCTCCAGGC
ACGGTCAATGAAGGAAACAGTGCCTGTCCACCCACCCTGCGTGTCACTGTGGCGGCTGGCTGTGCTGCTTTTT
GTCTCTGCCGTGTTTGGCGGGCTCAGTGCCCTCCCTGGTGCCTGTGCGCTGGGGCCCTCAGTGCTCGGGGCT
TGGGGTGCATGGGTGCCGCCCTGGGCAGCTAGAGTGTCTCAGCCCGGTGCTGGGCTGGCCGAGGGGCGGAGGCA
CAGCTGCTTCCAGCAGCCAGCATTAGTGCCCTTGTACCAAGCTCCACACCTCCTCCTGGTGTGGCTTTGGTG
ACATACAAGGCCCTCCAGGTGCAGGGGCTTCTGTTTGGCAGGCCCCTGCCAGGGAGGACCTGGTGGCCTCCTC
ATTCTCTTTTGGCATTGGAATGTCCCCTTGCACTTCTCTCTTTTTTTTTTTTTTTTGGATGGAGTTTCACTC
TTGTGCCCCAGGCTGGAGTGCAGTGGCTCAATCTCGGGTCACTGCAACCTCCGCCTCCCGGGTTCAAGTGATCGT
CCTGCCTTAGGCTCCTGAGTAGCTGGGGATTACAGGTGCCTACCAGCATGCTCGGCTAATTTTTTTTGTATTTTA
GTAGAGAAGGGATTTACCATGTTGGCCGGGCTGGTCTCAAACCTCCTAAGGTCATCCACCTGCCTCGGCCTCCCA
GAGTGCTGAGATTACAGGCGTGAGCCTCCGCGCCCGCCCCCTTGCACTTCTCTCTGATTGGTTTGTCTGTCT
CAGGCTTCTGTGGCAGGACTGGCCCAGGGAGGAGGAAGCCAGCAGCACACCTGGGGAATGGGGTCCCGGCCGGGA
GGCTTGGCCTCTGGGCGACCTCGTCTGTTTTTTTTTGTGTTGTTGTTTTTTTTTAAAGGTAAACCTCCTGGGC
CGCAGATGGCAAAGGGAGTGCCTGGGCTGGTGACCCAGGGCTGGATCCACCCCTGCGGAGCCCTGGGGCAGGCA
GGTGTCTGCTGCTCACCTGGCTCTGGAGGGCTGCCCTGCAGCTGGGCTGGGGACAGGTGGGCTGTGGGGCAGCT
CAGTACCTCCCTGAGGCTCACGGTGGCTCCGAGCATGAGGTCCGCCTCCTGGGCGAGACCCAGCAGTGGACAGC
ATGGTCTCACACCCAGCTCCCTGCACACCCAGGCCAGCCACCCCTCCCGCTCGTGACAGGCACGCAGATGCGC
TCACACGTACACACACACAAATGCACGCCCCTTGACATGCTCACGCACATGTTACACATGCACACTCACGCT
CACACATGCTGTACGCATACACACACGCACATACTCCTGCACATGTTCCCATGCATGTGTGTGCACTCGGACCG
AGCATCTCCACGCACCTCTACCCACCCCAAGCACCTCTCTCCCCCATGCACCTCTCCCCAACACACACACA
GCCCCCTGCACCGCCCGCCCCCGCCCCACCAAGGCCCCAGCCTCTGGCCATCAGTCTGGTGCCAGAGCTTTG
CGTGAAGTTGCGGGCCGAGAGTGGCCCGCTGGGACTCCCATGTGCTGCCGTCTGATGTGCTCAGATGGGCTCATC
GTTGGTTGTTTTTACTGTATATTTATAGTAATAAAATCATGCAGC

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FIGURE 4345

MGSILSRRIAGVEDIDIQANSAYRYPPKSGNYFASHFFMGGEKFDTPHPEGYLFGENMDLNFLGSRPVQFPYVTP
APHEPVKTLRSLVNIRKDSLRLVRYKDDADSPTEGDGKPRVLYSLEFTFDADARVAITIYCQASEEFLNGRAVYS
PKSPSLQSETVHYKRGVSQQFSLPSFKIDFSEWKDDELNFDLDRGVFPVVIQAVVDEGDVVEVTGHAHVLLAAFE
KHMDGSFSVKPLKQKQIVDRVSYLLQEIYGIENKNNQETKPSDDENS DNSNECVVCLSDLRDTLILPCRHLCLCT
SCADTLRYQANNCPICRLFPGPPADPGGAEEARSPVPRVLQPRPGPEPGA

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FIGURE 4346

AGACGCCGGGGGCGGACGGGAGGACCGGAGGACCGAGGACAGAAAGATTGGTGGACAGGAGCAGCGGCCGGTGGG
GAGGGCGCTCGGCGGGCGCCTGCGGCCATGGCCACCGTGATGGCAGCGACGGCGGGCGGAGCGGGCGGTGCTGGAG
GAGGAGTTCCGCTGGCTGCTGCACGACGAGGTGCACGCTGTGTTGAAGCAGCTGCAGGACATCCTCAAGGAGGCC
TCTCTGCGCTTCACTCTGCCGGGCTCCGGCACTGAGGGGGCCGCCAAGCAAGAGAACTTCATCCTAGGCAGCTGT
GGCACAGACCAGGTGAAGGGTGTGCTGACTCTGCAGGGGGATGCCCTCAGCCAGGCGGATGTGAACCTGAAGATG
CCCCGGAACAACCAGCTGCTGCACTTCGCCTTCCGGGAGGACAAGCAGTGGAGCTGCAGCAGATCCAGGATGCC
AGAAACCATGTGAGCCAAGCCATTTACCTGCTTACCAGCCGGGACCAGAGCTACCAGTTCAAGACGGGCGCTGAG
GTCCTCAAGCTGATGGACGCGAGTGATGCTGCAGCTGACCAGAGCCCCGAAACCGGCTCACCACCCCCGCCACCCTC
ACCCTCCCCGAGATCGCCGCCAGCGGCCTCACGCGGATGTTGCCCCCTGCCCTGCCGTCCGACCTGCTGGTCAAC
GTCTACATCAACCTCAACAAGCTCTGCCTCACGGTGTACCAGCTGCATGCCCTGCAGCCCCAACTCCACCAAGAAC
TTCCGCCCAGCTGGGGGCGCGGTGCTGCATAGCCCTGGGGCCATGTTCCGAGTGGGGCTCTCAGCGCCTGGAGGTG
AGCCACGTGCACAAAGTGAGTGCGTGATCCCCCTGGCTCAACGACGCCCTGGTCTACTTCACCGTCTCCCTGCAG
CTCTGCCAGCAGCTCAAGGACAAGATCTCCGTGTTCTCCAGCTACTGGAGCTACAGACCCCTTCTGATCAGCAGCAC
CCAGGAGCTTGTCTCCAGGAAGGCGGCCCGTCCCCCTACTCATACCCACCACAGAGCACCAGCCAGTGCCAACGC
CAGGCTGCTATTTATCTCCCTATCCCACCCCCCTACCCACCTAACACATTGCACTGCCAGGAATGGACACTGGA
AGTGCCAGGAGGAAGGAAGGCTGGTTTGGTGGGGTAGTGGGGAGGTCAGGGAGGCGGGGCCAAGGGTGTCCCACA
TTCCCAACACCGCCCTCTGATACCATGGGAATCTTTGGACTCAGGACAGGGCCAGGTGCAGGGCTCTCCCTCCT
CTCCCCCTTCGCTGTCCCCTCCCCCTGGAGGGCATGGTGTGCGGGGGTGGCACTGAGCTATGAGTCCCGGGGATGG
TGAGGAACGCCACAGACAGAGCCACCCTAGGAGTGAGTATAGTGCTGGTGACTGTGTTTCATAGCCCCAGTCCAG
GGCTGTCTAAGAAATAAAGATCATCAGACTCCAAAAAAAAAAAAAAAAAAAA

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FIGURE 4347

MATVMAATAAERAVLEEEFRWLLHDEVHAVLKQLQDILKEASLRFTLPGSGTEGPAKQENFILGSCGTDQVKGVL
TLQGDALSQADVNLKMPRNNQLLHFAFREDKQWKLQQIQDARNHVSQAIYLLTSRDQSYQFKTGAEVLKLMDAVM
LQLTRARNRLTTPATLTLPEIAASGLTRMFAPALPSDLLVNVYINLNKLCLTVYQLHALQPNSTKNFRPAGGAVL
HSPGAMFEWGSQRLEVSHVHKVECVIPWLNDALVYFTVSLQLCQQLKDKISVFSSYWSYRPF

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FIGURE 4348

GTCATGGCGCCCGAGGAGAACGCGGGGACCGAACTCTTGCTGCAGAGTTTCGAGCGCCGCTTCCTGGCGGCACGC
ACACTGCGCTCCTTCCCTGGCAGAGCTTAGAAGCAAAGTTAAGAGACTCATCAGATTCTGAGCTGCTGCGGGAT
ATTTTGCACAAGACTGTGAAGCATCCTGTGTGTGTGAAGCACC CGCGTCCGTCAAATATGCCCGGTGCTTTCTC
TCAGAACTCATCAAAAAGCACGAGGCTGTCCACACAGAGCCTTTGGACGAGCTGTATGAAGCGCTGGCGGAGACC
CTGATGGCCAAGGAGTCCACCCAGGGCCACCGGAGCTATTTGCTGCCCTCGGGAGGCTCGGTACACTCTCCGAG
AGCACGGCCATCATCTCCTACGGTACCACAGGCCTGGTCACATGGGACGCCGCCCTCTACCTTGCAGAATGGGCC
ATCGAGAACC CGGAGTCTTCACTAACAGGACTGTCTAGAGCTTGGCAGTGGTGCTGGCCTCACAGGCCTGGCC
ATCTGCAAGATGTGCCGCCCCCGGGCATAACATCTTCAGCGACTGTCACAGCCGGGTCTTGAGCAGCTCCGAGGG
AATGTCTTCTCAATGGCCTCTCATTAGAGGCAGACATCACTGCCAAGTTAGACAGCCCCAGGGTGACAGTGGCC
CAGCTGGACTGGGACGTGCGACGGTCCATCAGCTCTCTGCCTTCCAGCCAGATGTTGTCAATGCAGCAGATGTG
CTGTATTGCCCAGAAGCCATCATGTGCTGGTGGGGTCTGCGGAGGCTGGCTGCCTGCCGGGAGCACCAGCGG
GCTCCTGAGGTCTACGTGGCCTTTACCGTCCGCAACCCAGAGACGTGCCAGCTGTTACCACCGAGCTAGGCCGG
GCCGGGATCAGATGGGAAGTGGAACCTCGTCATGAGCAGAACTGTTTCCCTACGAAGAGCACTTGGAGATGGCA
ATGCTGAATCTCACCTGTAGGACTCACACACGACTCCAACGGGATTGTGAGAATCAAGTCACTCTCATGGGAAG
AATTTTTATATGGGAAAGCGGATAAACTTTTATTGGACTGGAATGTTGGAGAATGTTAATTTCCAAATCAGGA
ACCACAACTGCCCTCTAATAAGACATCGGCTATCTAAGCGTGTGGGTGCCCCCTTTCTGCCAGCAGTTCTGGTT
CTTAAGAAAATCACCATAAATCAGACATGAAAATTCTGGCTCCAAAAATAGCATTTTCTTTGTGCAAAATAAAAC
GTGTGTATCAAGTATGATGTTCCCCAACGTGGACACACTCAGTTCCTCACAAGCCAAGCCCACTGCAGCTGCC
ACATCCCTGGGCTTACGGTGCAGCAGGTGCTTTTTTCAAGACAGGAATCAAATGTTAGGAACACGGCAGAAAGG
GGACACCTGGAGACCAAACGCAGGATGAGGAGTTCTGCAGAGGTACAGGGAAGTCACAGAACAGTAATACGCTA
GCAGGGGCATGGGGCGTGAAGAACAGAAGAAGAGAGGAAGCGTTTCCAAGCCTCCAGAGAAGAAATCAAGGCCAA
CCAAAGCTTCCCGGTACAGAACCAATTCTTTTACCAGGCAGTACCACTGCTGTCATTTAGCTTCTGGCCACT
GGGAGGTGCTGCTCGAAAGGGTTTGCCCTGAGACTCCAAGAAGAAGCTGCGGGAAGGACAGCAGGGGTCTGGGG
TTTTAGCCTCTGGCCCAGGAGTTATGTGTCCATAACCAAAGGGAGCACAGTCTGCACCCAGCTCTCATCCCATCG
GAGCTGCTGCGACTCCCGCAGGTTCTTCGGAAGTGGTTTAGCTTGCCCGCAGGATCAGGAAAGTTTGAGAAAAG
CATCTGCAAAAAATAAAGAGCAGAGCTTACCTC

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FIGURE 4349

MAPEENAGTELLLSQSFERRFLAARTLRSFPWQSLEAKLRDSSDSELLRDILHKTVKHPVCVKHPPSVKYARCFLS
ELIKKHEAVHTEPLDELYEALAETLMAKESTQGHRSYLLPSGGSVTLSESTAIISYGTTGLVTWDAALYLAEWAI
ENPAVFTNRTVLELGSGAGLTGLAICKMCRPRAYIFSDCHSRVLEQLRGNVLLNGLSLEADITAKLDSPRVTVAQ
LDWDVATVHQLSAFQPDVVIAADVLYCPEAIMSLVGVLRRLLAACREHQRAPENVYVAFTRNPNPETCQLFTTELGRA
GIRWEVEPRHEQKLFPEYEEHLEMAMLNLTLL

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FIGURE 4350

GGCACGAGGGAGAGATCGTCCAGGAGGCGGTGTTGATGCGGCAAAGGGCAACAGGAAGGGCATTAGGACTTGAAA
TCGAGAGACGCACGCAGGGGAGGGAGTCAGTGTGCGAACCTGGTAGGCCCTGGGAGAACTCCGGCTTTTCGTCTGC
GTGAGCTGGAGAAGAGCCGAAGGTTTCTGCGCACAGCACGGACCTGCGTGCCCTCAGCTTTAAGGAAATCACCGTG
GCCGCCGCTGTGAACGCAGAGAAGGGCGCGAGCGTGGGAGCAGGAACCCAAGGCGGTGGGAAACGGTGGGGCTTT
CTGAGTGTATTGGAAGTAGAGCCACAGATCTGCTGCAGACCAGAAAGGGGCGCGAGAAAGAGCGGACAGAGGC
AGACGCCCGGGGCTGGCGGCGATGGAGCAGCAGTCGGAGGACGCGGAAGGCCTGCGAGAGTCGCCCCGCGGCCAGC
GCCGGCCTTCGGGTCCCACCTTGCGGGTGATGTTGTGCACGTAGGGGCACGTGTTGCAGGCGAAGCGGTGGCAGC
GTTGTCCCTCCTCCACGATCAGCCCGTTCCCGCAGCCGGGGCAGAACAGCAGCATGGTCTCGAACTCCGCAGGCT
CCAAC TCCCGGCAGCTCCCACTGCCGCTCAGCGCCGATGCGCCGCCCTCGAGCTCACATTGGTCCCTGGCAGC
CTTCCCGCCACACCAACCAACCAATAGACAGGGCGATTCTGCGCTCCCGGCCCTGCTGCAGGCTGTCTCGCACTT-
GTCATTGGTCACTGCAGCCGCCCCACCCCCCGGCGCGCCAGTGGCTGGGCGGCCCTCGCTGGGGCGGGCCGCAG
TTCTTGCGCGTGC GCGCTTGCCCTAGTGC GGCTGGCAGTGC GGGCAGAGCCCGGCTGAGAGGGGCGGCCC
TGGAGGAGACGGAGGCCGCGGGTGGGCCCAGGCGCAAGAGGAAGATGAGGACGAAGAAGAGGCGCTGCCGCACT
CCGAGGCCATGGACGTGTTCCAGGAGGGTCTGGCTATGGTGGTGCAGGACCCGCTGCTCTGCGATCTGCCGATCC
AGGTTACTCTGGAAGAAGTCAACTCCCAAATAGCCCTAGAATACGGCCAGGCAATGACGGTCCGAGTGTGCAAGA
TGGATGGAGAAGTAATGCCCGTGGTTGTAGTGCAGAGTGCCACAGTCCTGGACCTGAAGAAGGCCATCCAGAGAT
ACGTGCAGCTCAAGCAGGAGCGTGAAGGGGGCATTGAGCACATCAGCTGGTCCTACGTGTGGAGGACGTACCATC
TGACCTCTGCAGGAGAGAACTCACGGAAGACAGAAAGAGCTCCGAGACTACGGCATCCGGAATCGAGACGAGG
TTTCCTTCATCAAAAAGCTGAGGCAAAAGTGAGCCTCCAGACAGGACAACCTCTTCATCACTGGTGGCTGAGCT
TTTTCCCAGCAGGAATGGGTCCCTCGAATCATCGTGCCCTTTTCACAGAAAGGACGTTGTGGTGGCCTCACCCAG
GCATGCCCAACAGTAACTGTCAGCATAAACCTGGGGGCCCTCAGGACTAGGACAGGGTGAGCCAGTGCTCCCTCC
TTTCATGTACTTGGCCTGAGACTGACCTCTCCCTAGGTCCAAATGCCCTAGTCACATGGCAGACCCACGGCCTGG
CCCCTGTATAAAATAAACCTGTTTGCTTCTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4351

MDVFQEGLAMVVQDPLLCDLPIQVTLEEVSQIALEYGQAMTVRVCKMDGEVMPVVVVQSATVLDLKKAIQRYVQ
LKQEREGGIQHISWSYVWRITYHLTSAGEKLTEDRKKLRDYGIRNRDEVSF IKKLRQK

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FIGURE 4352

CCTGGGCCCCCATGCCGTGCAGCTCGCACATATGTGGGGCAGAGCAGCCACCCTGCCCCAGCAGCAGCCGTCCA
TCGTACAGACGTGATCATTTCCTGAGGCCTCGAGTGTGTCAGGGTGTTTGTGCCTCATAACAACCCACAGGATGGT
CACCCCCGCTTTGCAGATGAAGAAACCAAAGCAGTTTTTGCCGACGGATGGGGCAAAGAAGCAGCGACCAGCTAG
AGCAGGGCAGCCACACAGCTCGTCCGACGCAGCCCAGGCACCTGCAGAGCAGCCACACAGCTCGTCCGATGCAGC
CCAGGCACCTTGCCCCAGGGAGCGCTGCTTGGGACCGCCACCACTCCGGGGCCATACCGCAGCATCTATTCTC
AAGCCCAAAGGGCCACCTTACCCGACTGGGGTTGGAGTTCTTCGACCAGCCGGCAGTCCCCCTGGCCCCGGGCATT
TCTGGGACAGGTCTTAGTCCGGCGACTTCCTAATGGCACAGAACTCCGAGGCCGCATCGTGGAGACCGAGGCATA
CCTGGGGCCAGAGGATGAAGCCGCCCACTCAAGGGGTGGCCGGCAGACCCCCCGCAACCGAGGCATGTTTCATGAA
GCCGGGGACCCGTGTACGTGTACATCATTACGGCATGTACTTCTGCATGAACATCTCCAGCCAGGGGGACGGGGC
TTGCGTCTTGCTGCGAGCACTGGAGCCCCTGGAAGGTCTGGAGACCATGCGTCAGCTTCGCAGCACCCCTCCGGAA
AGGCACCGCCAGCCGTGTCTCAAGGACCGCGAGCTCTGCAGTGGCCCCCTCCAAGCTGTGCCAGGCCCTGGCCAT
CAACAAGAGCTTTGACCAGAGGGACCTGGCACAGGATGAAGCTGTATGGCTGGAGCGTGGTCCCCCTGGAGCCCCAG
TGAGCCGGCTGTAGTGGCAGCAGCCGGGTGGGCGTCGGCCATGCAGGGGAGTGGGCCCGGAAACCCCTCCGCTT
CTATGTCCGGGGCAGCCCCCTGGGTGAGTGTGGTGCACAGAGTGGCTGAGCAGGACACACAGGCCTGAGCAAAGGG
CCTGCCCAGACAAGATTTTTTAATTGTTTAAAAACCGAATAAATGTTTTATTCTAG

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FIGURE 4353

TTCCCATCCGCCACCAGCAAGAGGGGGCCCTGTGCCCCAAACGCGAACCGTACGGCTCCAGACAGCACCCGCGGAAC
TGGTGGCTTCCAGAAGGCCCGCGCCTGCGCATTCCGCTGCTGCGCCTGCGCCTGCGCCTGCGCCGTTCTCCC
GGCCGCCGCTTAGCACCTCCTCCGGACGGTGTGCGCGAAGTCTCGCGAGCCCGGAGCGTGGCACGTGGGCCCCC
TCCGCTTCCGGCTCCGTCTCTCTGCCCCCTCCGCCCCGGCCCCACGGCGGGATGCGGGACAACAC
CAGCCCCATCAGCGTGATTCTGGTGAGCTCGGGGAGCAGGGGCAATAAGCTGCTGTTTCAGGTACCCCTTCCAGAG
AAGCCAGGAGCACCCGGCGTCCAGACAAGTAAGCCGCGTAGCAGATACGCTGCCAGCAACACGGGCGACCATGC
TGATGAGCAGGACGGCGATTCCAGGTTTTTCAGATGTTATTCTGGCAACAATTTTGGCAACCAAGTCTGAAATGTG
TGGCCAAAAATTTGAAGTGAAGATTGATAATGTGCGATTGTGTTGGGCACCAACACTGCTACAGCATGCTCTGG
GCAGATCTCCAAAACAGATCCTTCCCCGAAGAGGGAAGCACCTACTATGATTCTTTTTAATGTGGTGTGTTGCACT
GAGGGCCAACGCAGACCCGTCAGTGATAAACTGTCTGCATAACCTGTCCCGTCGTATCGCCACCGTGTGTCAGCA
CGAGGAGCGCCGCTGCCAGTACCTCACCCGGGAGGCCAAGCTGATCCTGGCGCTCCAGGATGAGGTGTCCGCCAT
GGCTGATGGAATGAAGGTCTCAGTCCCCATTCCATCACATCCTGCCAAGTGCAAGCTGGCCAGGGACCTCAA
GGAAGCTTATGACAGCCTGTGCACGTGCGGCGTAGTTCGGCTTCACATCAACAGCTGGCTGGAGGTGAGCTTCTG
CCTGCCCCACAAGATCCACTATGCGGCCTCCAGTCTGATCCCCCAGAGGCCATCGAACGGAGCCTGAAAGCCAT
CCGCCCCATCCATGCCCTGCTGCTGCTCAGTGATGAGAAGTCTTGTGGGTGAGCTTCTATTGACTGCTCCCC
TGCCCTAGTGGGGTGATCAAGACCACATCTGCTGTGAAGAACCTGCAGCAGCTAGCCCAAGATGCGGACCTGGC
CTTGCTGCAGGTTTTCCAGCTTGCACTCATCTGGTGTACTGGGGCAAGGCCATCATCATCTACCCGCTGTGTGA
GAACAACGTCTACATGCTGTCTCCCAATGCCAGCGTATGTCTGTACTCCCGCTGGCCGAGCAGTTCTCCCACCA
GTTCCCATCTCATGACCTGCCGTCCGTTCTTGCCAAGTTCTCCTTGCCGGTCTCCTTGTGAGAATTTAGGAATCC
CCTGGCCCCCGCTGTGCAGGAGACCCAGCTCATCCAGATGGTGGTGTGGATGCTGCAGCGCCGGCTTCTCATCCA
GCTGCACACCTATGTCTGCCTGATGGCCTCACCCAGCGAGGAGGAGCCCCGTCCGCGAGAGGACGACGTCCCCCT
CACTGCCCCGGGTGCGCGGTGCGAGCCTCAGCACGCCCAACGCCCTCAGCTTTGGCTCCCCAACCAGCAGCGATGA
CATGACCCTCACAGCCCCAGCATGGACAACCTCCAGCGCAGAGCTACTTCCCAGCGGGGACTCGCCACTGAACCA
GAGGATGACGGAGAACCTGCTGGCCAGCTGTGCGAGCATGAACGCGCAGCCATCCTCAGTGTACCCGCAGCCCAG
AACCCTGAGGACCTCCGCATGTTTGCCAGGCTCCTTCACTACTTCCGCGGCCGCCACCACCTGGAGGAGATTATG
TACAACGAGAACACGCGGGCGCTCCCAGCTGCTCATGCTGTTTGACAAGTTCGCGAGCGTGTGTTGGTGACCACC
CACGAGGACCCTGTCAATTGCCGTCTTCCAGGCTCTGCTCCCCTGAGCCCAGGCGGAGGGCGGAAGGCTGCTGGGG
TGCGCAGGTGGGCGCTCGCGTCTCCCCACCCAGGGCTCCCCCGTGCTGAGGCTGAGCCCTCTTGGCCCTGAGG
CCTGGCATTGGGTGGATGCGGGCTGGCCGTGGCCAGTGAAGCCTGCAGAGCCCCGTGTCTTGGCCCTGGTGG
TTCCGCTGTGGGGCTGCTGCCCTCTGTGTTCTACGCTTCCCTCCAGTCTTGGCGCACGCGTAGGCATCTCCAC
GCTGGAGGGGGGCTGCCAGGACTCCTGTCTCTGGGTGAGGCCGCATCCTTCAAGGCCATGTGGGCTGTGCGTT
TCTCAGACCCTCCTTCTGTCCCTACACCTGCTCCTTGGACCCCCAGTCTGTGGCCACCCTGAAGAATGTGCAGA
AACACTTGTGTGGCCTGTCCCTGTCTCTGACAGCCTTCTATTTGTGAAGTGCCCTGTGGCCCCCTCCCCAGCA
CCTCTGTCTGCCATGCGCTTCTTCTCCCAGGCTACCTGAGCCTTCTGCCCCAGTCTCACCACAGTCCACA
GAAGCCGCAACAGGCTCATAGCCAAGCTGTGACCTGGTCTGACCATGTGGGCACGAGGGCCTGGGCTGGCC
TGCTAGGCTGGAGAAGCCCTGTACCTGTGCACATCTTGGTGGAGGACATGGCCCACTGTGCAGGACCCACC
CTCGGGGGCTTTTCGGCTCCCACACTGATGATTCTCCCCAGCATCCACACCGGGCTGGCGCTACGTACTCAGGCC
CCAGCTCTCTGTGTCCTGGAGGAAGAGCTAGCTCCAGACATGGGTTGATCACCTAGAGGAGCTCTGGCTAAGGCA
CAGTTTTCTAGAAAATAAAACATTTATTCGGTTTGGAAGGCCCTTGGATTCTGGCTGGGGACAATGATGACCT
GGACCCTGGCCAGAAGAGCCCTGGCCCTCCAGCAAGGCAGCACCTGCTCTGATGCACCTGTGCACCCCTGGCCCT
CCCAGCCACCTGGGAGTCCGAAGCTTAGCCTGGAGGTGGCCAAGCCAGTCCCTACTCTTGGGCTGCGGCCACGTG
AGGCTCCGCATCAGCAGCCAGGGGCGAGCACTAGTGGAACAAAGCCAGCAAATGCGGCGTTCTGTGAGCAGATAC
CCTCAACCAGCCAGCTGTCAAAAGTATTTCAAGATAAAATCCAGGCCAAGC

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FIGURE 4354

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACCAATGGTGTGTCTCCTGCCGACAAGACCAACGTCAAGGC
 CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC
 CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT
 GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA
 CGCGCACAAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCA
 CCTCCCCGCCGAGTTACCCCTGCGGTGCACGCCCTCCCTGGACAAGTTCCTGGCTTCTGTGAGCACCGTGCTGAC
 CTCCAAATACCGTTAAAGCTGGAGCCTCGGTAGCCGTTCTCCTGCCCGCTGGGCCCTCCCAACGGGCCCTCCTCCC
 CTCCTTGACCGGCCCTTCTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

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FIGURE 4355

MVLSPADKTNVKAAWGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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FIGURE 4356

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACCATGGTGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT
GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA
CGCGCACAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCA
CCTCCCCGCCGAGTTCACCCCTGCGGTGCACGCCTCCCTGGACAAGTTCCTGGCTTCTGTGAGCACCGTGCTGAC
CTCCAAATACCGTTAAGCTGGAGCCTCGGTGGCCATGCTTCTTGCCCCCTTGGGCCTCCCCCAGCCCCCTCCTCCC
CTTCTGCACCCGTACCCCGTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

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FIGURE 4357

MVLSPADKTNVKAAWGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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FIGURE 4358

CCGACGCGACCATCGTTTTGTCGACGCCGCTGCCACCGCCTGCCTGAGAGAAGTCGTGCGGGCCGACCCCGTCGCC
TCCGCCGGCTACCAATGTCGCCCCAGGCGCAGATGCGGGCCCTGCTGGACCAGCTCATGGGCACGGCTCGGGACGG
AGACGAAACCAGACAGAGGGTCAAGTTTACAGATGACCGTGTCTGCAAGAGTCACCTTCTGGACTGCTGCCCCA
TGACATCCTGGCTGGGACGCGCATGGATTTAGGAGAATGTACCAAAATCCACGACTTGGCCCTCCGAGCAGATTA
TGAGATTGCAAGTAAAGAAAGAGACCTGTTTTTGAATTAGATGCAATGGATCACTTGGAGTCCTTTATTGCTGA
ATGTGATCGGAGAAGTCTGAGCTCGCCAAGAAGCGGCTGGCAGAAACACAGGAGGAAATCAGTGCAGGAGTTTCTGC
AAAGGCAGAAAAAGTACATGAGTTAAATGAAGAAATAGGAAAACTCCTTGCTAAAGCCGAACAGCTAGGGGCTGA
AGGTAATGTGGATGAATCCCAGAAGATTCTTATGGAAGTGGAAAAAGTTCGTGCGAAGAAAAAAGAAGCTGAGGA
AGAATACAGAAATTCATGCCTGCATCCAGTTTTTACGACAGCAAAAGCTGCGTGTCTGCGAGGTCTGTTTCAGCCTA
CCTTGGTCTCCATGACAATGACCGTCGCCTGGCAGACCACTTCGGTGGCAAGTTACACTTGGGGTTTCATTTCAGAT
CCGAGAGAAGCTTGATCAGTTGAGGAAAACTGTGCTGAAAAGCAGGAGAAGAGAAATCAGGATCGCTTGAGGAG
GAGAGAGGAGAGGGAAACGGGAGGAGCGTCTGAGCAGGAGGTGCGGATCAAGAACCAGAGATCGCAGGAGGTACG
CTCCCGGGATCGGCGTCGGAGGCGGTCAAGATCTACCTCCCGAGAGCGACGGAATTGTCCCGGTCCCGGTCCCG
AGATAGACATCGGCGCCACCGCAGCCGTTCCCGGAGCCACAGCCGGGGACATCGTCGGGCTTCCCGGGACCGAAG
TGCGAAATACAAGTAACTACTCTGACTCCTTCGGTAGCTGCAACCAGGAGTGAGCCCTTCTCTGTGTTCCAGGG
TCTGCTGAGGGCCGTGTCTGGTGGGGATGGGGCTGGGCTCACCTCAGGAGTAGGGCTGGGGAGTCGTGAACGGG
ACTCAGGTGTGGGAAGAGGCGAGAGGGCTGTGGAGGAGCTCGCACGGCGCCAGGTGATGGGCTGCACAGGCACTG
TCCCCTGCCTGCGTCTGGGGCTGTGCACTGTTGCGTCCATGCTCAGAGTGGCTGAGACTTGTGTCCTGACCAG
GCCCTGCTTACCTCTGTTTTGTTTTTTGTTTTTGATATTTTTTTTCCATTGTGTTTTTACGTAGTGTATGTTT
TGTGCATATAGTGTGTATTCTCCTTTGCACTGTTTATGTTACAGTGAAGGCTCTCCTTATTAAAAATCTTCGA
AAGGTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4359

MSAQAQMRALLDQLMGTARDGDETRQVRKFTDDRVCKSHLLDCCPHDILAGTRMDLGECTKIHD LALRADYEIAS
KERDLFFELDAMDHLESFIAECDRRTELAKKRLAETQEEISAEVSAKAEKVHELNEEIGKLLAKAEQLGAEGNVD
ESQKILMEVEKVRAKKKEAEEYRNSMPASSFQQQKLRVCEVCSAYLGLHDNDRRLADHFGGKLHLGFIQIREKL
DQLRKTVAEKQEKRNQDRLRRREEREREERLSRRSGSRTDRRRRSRSDRRRRRSRSTSRERRKLSRSRSRDRHR
RHRSRSRSHSRGHRRASRDRSAKYK

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FIGURE 4360

AGCGGCGAGGGCTGGATCCTGGGCCAAATATATGCCAACAACGACAAGCTCTCCAAGAGGCTGAAGAAAGTGTGG
AAGCCACAGCTGTTTGTAGCGAGAGTTCTACAGTGAGATCCTGGACAAGAAGTTCACAGTGACTGTGA~~CC~~ATGCGG
ACCCTGGACCTCATCGATGAGGCTTACGGGCTCGACTTTTACATCCTCAAGACCCCGAAGGAGGACCTGTGCTCC
AAGTTTGGGATGGAGCTGAAGCGAGGGATGCTGCTGCGGCTTGCCCGGCAGGACCCCGAGCTGCACCCCGAGGAC
CCCGAGCGGGCGGGCAGCCATCTACGACAAGTACAAGGAATTTGCCATCCCAGAGGAGGAGGCAGAGTGGGTGGGC
CTCAGCTGGAGGAGGCCATTGAGAAGCAGAGACTTTTGAGGAGAAGGACCCCTGTACCCCTGTTCAAGATCTAT
GTGGCGGAGCTGATCCAGCAGCTGCAGCAGCAGGCACTGTCAGAGCCGGCGGTGGTGCAGAAGACAGCCAGTGGC
CAGTGACCACACAGCTCCTCCATGCCTGACCAACAGGCCAGCTTTCCCTGCCAGGCCCTTTGCACTGAGGACAC
AGATCCCGGGGAGCTGTGAGGGCCACCGGTGGGCAGTGGGTGGATCCTGGTTTCGTGTGCTGCCCATGCACCTTC
CAGCCCGGGGCCAGCTTGGCAGGGATCCCCAGGAGGCCTGGGCCGCCAGAGGCTCCTCTCAGGCTGGGCCCCGA
CGTTTGCGGCAGTGTTCTTGTCCTGTCCTGGGGCCGGGAGCGAGTAAAGTCTGGGCCAGGC

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FIGURE 4361

MRTLDEAYGLDFYILKTPKEDLCSKFGMELKRGMLRLRLARQDPQLHPEDPERRAAIYDKYKEFAIPEEEAEW
VGLTLEEAIEKQRLLEEKDPVPLFKIYVAELIQQLQQQALSEPAVVQKTASGQ

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FIGURE 4362A

GCACCGCGGCTGAGGAGCGGGAGGCCGTCCGGGCAGCGCGGCCGGCGAGAGGGGCCCCGCGCTCTCCGGAG
GCAGAAGTTGTGGATCGGCCGGCGGGGGCGAGCGGGCCCGGGGCGCGCTGCCCGGGCCGCGAGGACG
AGGCGGCGCGCCCGGGCTGTGGAGGCAGCAGCCAGACGCGGCACAGAGAGGGCCTGGGAGCTTGCTGCAGCTTC
AGACAGGGAGCCAGGATGGGAACCACGGACTGACCTGACCTGCGTCTCGGGGCCACTGCACTGGGTGATTACG
TGTGCCAGGCCCTGAGGTGGGCCGGACCTGGGAGTGGCAGCCACACCCACTCGCCCGGGTCTATGGCCACGGTC
GGAGAGTGGTCTGTGTGCGCTGCACCTTCCTGAACCCGGCCGGCCAGCGCCAGTGTCTCATCTGCGAGGCTCCC
CGGCACAAGCCCGACCTCAACCACATCCTGCGGCTCAGCGTGGAGGAGCAGAAATGGCCCTGCGCCCGCTGCACC
TTCCGCAACTTCCTGGGCAAGGAGGCCTGCGAGGTGTGCGGCTTCACCCCGAGCCTGCGCCTGGGGCTGCCTTC
CTGCCAGTCTCAACGGGGTCTCCCCAAGCCACCCGCCATCTGGGGGAGCCCCAAGGGCAGCTGCCAGGAGGAA
GCAGTCCAGTGAGGACTGCGGGGCTGGTGCCACGGACCCCTGAGGGGGCAGTGCAGGACAAGGACGAGGAG
GAGAAGGAGGAGCAGGAGGAGGAGGAGGGAGCGCGGAGCCAGAGGGGGCTGGGCGTGTCCGCGTTGCACGCTG
CACAACACGCCCCGTGGCCAGCTCCTGCTCCGTCTGCGGGGGGCCACGCAAGCTCTCGCTGCCACGGATCCCTCCT
GAGGCCCTGGTGGTCCCAGAGTGGTGGCCCCGGCCGGCTTCCACGTGCTGCTGCGCGCCTCCACCTTGGCCTC
CCCCGGGAAGGTGCCGAGGCCAACCCCCCAGCCACCAGCCAGGGCCAGCTGCCGAACCAGAGCCGCCCCAGGGTC
CCGCCCTTCAGCCCCCTTCTCGTCCACCCTGCAGAACAAACCCGTGCCGCGCAGCCGACGCGAGGTTCCCCCCCAG
CTGCAGCCACCGGTGCTGAGGCTGCCAGCCGTACCCCTCTGCCGGCTGCAGGGGAGCCCCCAGGGCTCGGGC
TGGGCTGGGGCCTCCCGCTAGCAGAGTTGCTGTCTGGCAAGCGGCTGAGTGTGCTGGAGGAAGAGGGCCACGGAG
GGTGGCACCAGCCGCTAGAGGCCGGCAGCTCCACCTCGGGCAGTGACATCATTGACCTGGCCGGAGACACCGTG
CGTTACACGCCCCGAGCCCCCTCCAGCCCCGACTTACACCTGGTCAATGTGCAAGTGACGCTCAGAAACCCC
ACAGTGGCCCCCAGGTGCTCGGCCTGCGGCTGCTCCAACTGCACGGCTTCCAGGAGCATGGCGAGCCCCCACC
CACTGCCCCGACTGTGGGGCCGACAAGCCAGCCCCCTGCGGCAGAAGCTGCGGACGGGTGCTCTCGGCCAGAAG
GCCGCCCGCTCTGCCGAGCGCCCGGGCCAGTGGGCTGCCCTGCTGTACCCTGCTCAACGCACCTGCGGGCC
AAGCACTGCGCCGCTGCCACACGCTCAGCTCCTGGTGGCCAGCGCGGGGGGCGCGCCCCCTGAGGCGCAGG
GAGAGCATGCAGTGGAGCAGCGCGGCAGACAGAGGGCGAGGCCAAGGCACTCTGGGAGAACATCGTGGCC
TTCTGCCGGGAGAACAATGTGAGCTTCGTGGATGACAGCTTCCCTCCCGGGCCGAGTCTGTGCGCTTCCCCGCG
GGTGACAGCGTGCAGCAGCGTGTGAGGCAGTGGCTGCGACCCAGGAGATCAACTGCTCCGTCTTCAGGGACCAC
AGGGCCACGTGGTCTGTGTTCCACACACTGCGGCCCTCAGACATCCTGCAGGGGCTGCTGGGGAACCTGCTGGTTC
CTGAGCGCCCTGGCGGTGCTGGCGGAGCGGCCGACCTGGTGGAGCGGGTGATGGTCACGCGCAGCCTGTGTGCA
GAGGGCGCCTACCAGGTGCGGCTGTGCAAGGACGGCAGTGGACCACGGTGTGGTGGACGACATGCTGCCCTGT
GATGAGGCCGGCTGCCTCCTCTTCTCACAGGCGCAGCGGAAGCAGCTGTGGGTGGCCCTCATCGAGAAGGCGCTG
GCCAAGCTGCACGGCTCCTACTTTGCGCTCCAGGCGGGCCGCGCCATCGAAGGCCTGGCCACGCTACCGGCGCC
CCCTGTGAGAGCCTGGCGCTGCAGCTCAGCTCCACTAACCCCGCGAGGAGCCCGTTGACACTGACCTCATCTGG
GCCAAAATGCTGAGTTCTAAGGAGGCTGGGTTCTCATGGGTGCCCTCCTGTGGCGGGGGCAACATGAAGGTGGAC
GATTGCGCCTACGAGAGCCTGGGCTGCGCCCCCGGCATGCCTACTCCATCCTGGATGTCCGAGATGTCCAGGGC
ACCAGGCTTCTGCGGCTCCGAAACCCGTGGGGCCGTTTCTCCTGGAACGGCAGCTGGTCCGACGAGTGGCCACAC
TGGCCGGGGCACCTGCGTGGCGAGCTCATGCCGACGGCAGCAGTGAGGGTGTCTTCTGGATGGAGTACGGCGAC
TTTGTGAGGTACTTCGACTCCGTGGACATCTGTAAGGTGCACTCGGACTGGCAGGAGGCGGGGTGCAGGGCTGC
TTTCCAGCTCGGCCAGCGCGCCCGTGGGGGTAAACAGCGCTCACGGTGCTGGAGCGGGCCTCGCTGGAGTTCCGG
CTCTTCCAGGAGGGCAGCAGGCGCTCGGACGCCGTGGACAGCCACCTGCTGGACCTGTGCATCCTGGTGTTCGG
GCCAGGTTCCGGCAGCGGCGGCCACCTCAGCCTGGGCCGCTCCTGGCCACAGTAAGCGCGCGGTCAAGAAGTTC
GTCAGCTGCGACGTATGCTGGAGCCTGGCGAGTACGCTGTGGTGTGCTGCGCCTTCAACCACTGGGGGCCGCC
CTGCCGGGACCCCTGCCCCCCAGGCCTCCAGCCCCCTCGCAGGGGTCCCGAGAGCCTCCCCAGAGCCGCGGGC
CAGTGCTGGCTGTGTACAGCTCGAGGCTGGTCAATGGTGGAGCCCGTGAAGCCAGCCGACCACGCTGGCCGAC
GCCATCATCTGCTCACCAGAGAGCCGCGGAGAGCGGCACGAGGGCCGTGAGGGCATGACCTGCTACTACCTGACA
CACGGTTGGGCGGGGCTCATCGTGGTGGTGGAGAACCAGACACCCCAAGGCCTACCTGCACGTGCAGTGTGACTGC
ACCGACAGCTTCAACGTGGTGTCCACACGCGGCAGCCTGCGTACCCAGGATAGCGTGCCACCCCTGCACAGGCAG
GTCTGGTGTATCTGTCCAGCTAGAGGGCAACGCCGGCTTCTCTATACCCACCGCTGGCACATCGCAAGGCA
GCCCAGGCCTTCTCAGTGACTGGACAGCCTCCAAGGGGACCCACAGCCCCCACTACGCCAGAGGTGCGCGGT

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FIGURE 4362B

CTGCATGGGCCCCGACCGCTGTGAACACCATGCCTGGGGCAGGGGCTGTGCACAGACGGACCCCCACCCCCACA
CGCACTTTATGAGGGAGACCCCGACAGAGGACGCTTGAGCCAGAATCTCAGGACCCCGCCAGGGAGCTGCCAGC
CCAGGGCTCAGCTTCCCATGGGCCCCCGCCCCCTCCTTCCCTCCCTGAACCCACAGTCCGCCTGGCCAGAC
CTCCTGGCCGCCACGCAGAATACCTCGAACCAGGCGGGCTGTGAACAGCCCGCTCACCTGCCAGCCCCAACAC
CCGACGGGGGCCGAGGCCAGGCTGCCCCCTCCTGTGGGCTCAGGGTCTCCTGCGGGCTAGGCAGCCAGGAGCTCT
GTCCGCAAAACCAAACTCTGGGTGTCAGAGGCCAAGACCCTGGGGTGGGATCAGGGACACCCCTCACGGGGCATA
AGGTCAAGTTTCCCCCAGAGCCCGGGTCCCTGTCCCCACAGGGCAGGCGGGGTCCCTGGAGCCCTGGTGTGGAG
CGGCGAGTCCCGGGGCGGTGCCTGTCTCAGAAGAAGGG

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FIGURE 4363

MATVGEWSCVRCTFLNPAGQRQCSICEAPRHKPDNLNHLRLSVEEQKWPCARCTFRNFLGKEACEVCGFTPEPAP
GAAFLPVLNGVLPKPPAILGEPKGSCQEEAGPVRTAGLVATEPARGQCEDKDEEEKEEQEEEEGAAEPRGGWACP
RCTLHNTPVASSCSVCGGPRRLSLPRIPPEALVVPEVVAPAGFHVVPAAPPPGLPGEGAEANPPATSQGPAAEPE
PPRVPPFSPFSSTLQNNPVPRSRREVPPQLQPPVPEAAQPSPSAGCRGAPQGSWAGASRLAEILLSGKRLSVLEE
EATEGGTSRVEAGSSTSGSDIIDLAGDTVRYTPASPSSPDFTTWSCAKCTLRNPTVAPRCSACGCSKLHGFQEHG
EPPTHCPDCGADKPSPCGRSCGRVSSAQKAARVLPERPQWACPACTLLNALRAKHCAACHTPQLLVAQRRGAAP
LRRRESMHVEQRRQTDEGEAKALWENIVAFCRENNVSFVDDSFPPGPESVGFPPAGDSVQQRVRQWLRPQEINCSV
FRDHRATWSVFHTLRPSDILQGLLGNCWFLSALAVLAERPDLVERVMVTRSLCAEGAYQVRLCKDGTWTTVLVDD
MLPCDEAGCLLFSQAQRKQLWVALIEKALAKLHGSYFALQAGRAIEGLATLTGAPCESLALQLSSTNPREEPVD
DLIWAKMLSSKEAGFLMGASCGGGMKVDDSDAYESLGLRPRHAYSILDVRDVQGTLLRLRNPWGRFSWNGSWSD
EWPHPWPHLRGELMPHGSSEGVFWMEYGDFVRYFDSVDICKVHSDWQEARVQGCFFSSASAPVGVLTALTVERAS
LEFALFQEGSRRSDAVDSHLLDLCILVFRATFGSGGHLSLGRLLAHSKRAVKKFVSCDVMLEPGEYAVVCCAFNH
WGPFLPGTPAPQASSPSAGVPRASPEPPGHVLAVYSSRLVMVEPVEAQP TTLADAI ILLTESRGERHEGREGMTC
YYLTHGWAGLIVVVENRHPKAYLHVQCDCTDSFNVVSTRGSLRTQDSVPPLHRQVLVILSQLEGNAGFSITHRLA
HRKAAQAF LSDWTASKGTHSPPLTPEVAGLHGPRPL

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FIGURE 4364

CTGGGCCGCGAGGCGCGGAGCTTGGGAGCGGAGCCCAGGCCGTGCCGCGCGGCCCGCCATGAAGGGCAAGGAGGAGA
AGGAGGGCGGGCGCACGGCTGGGCGCTGGCGGCGGAAGCCCCGAGAAGAGCCCCGAGCGCGCAGGAGCTCAAGGAGC
AGGGCAATCGTCTGTTTCGTGGGCCGAAAGTACCCGGAGGCGGCGGCCTGCTACGGCCGCGCGATCACCCGGAACC
CGCTGGTGGCCGTGTATTACACCAACCGGGCCTTGTGCTACCTGAAGATGCAGCAGCACGAGCAGGCCCTGGCCG
ACTGCCGGCGCGCCCTGGAGCTGGACGGGCAGTCTGTGAAGGCGCACTTCTTCCTGGGGCAGTGCCAGCTGGAGA
TGGAGAGCTATGATGAGGCCATCGCCAATCTGCAGCGAGCTTACAGCCTGGCCAAGGAGCAGCGGCTGAACTTCG
GGGACGACATCCCCAGCGCTCTTCGAATCGCGAAGAAGAAGCGCTGGAACAGCATTGAGGAGCGGCGCATCCACC
AGGAGAGCGAGCTGCACTCCTACCTCTCCAGGCTCATTGCCGCGGAGCGTGAGAGGGAGCTGGAAGAGTGCCAGC
GAAACCACGAGGGTGATGAGGACGACAGCCACGTCCGGGCCCCAGCAGGCCTGCATTGAGGCCAAGCACGACAAGT
ACATGGCGGACATGGACGAGCTTTTTTCTCAGGTGGATGAGAAGAGGAAGAAGCGAGACATCCCCGACTACCTGT
GTGGCAAGATCAGCTTTGAGCTGATGCGGGAGCCGTGCATCACGCCAGTGGCATCACCTACGACCGCAAGGACA
TCGAGGAGCACCTGCAGCGTGTGGGTCATTTTGACCCCGTGACCCGGAGCCCCCTGACCCAGGAACAGCTCATCC
CCAACTTGGCTATGAAGGAGGTTATTGACGCATTATCTCTGAGAATGGCTGGGTGGAGGACTACTTGAGGTTCCTCC
TGCCCTACCTGGCGTCTGGTCCAGGGGAGCCCTGGGCAGAAGCCCCGGCCCCCTATACATAGTTTATGTTCCCTG
GCCACCCGACCGCTTCCCCAAGTTCTGCTGTTGGACTCTGGACTGTTTCCCCTCTCAGCATCGCTTTTGCTGG
GCCGTGATCGTCCCCCTTTGTGGGCTGGAAAAGCAGGTGAGGGTGGGCTGGGCTGAGGCCATTGCCGCCACTATC
TGTGTAATAAAATCCGTGAGCACGA

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FIGURE 4365

MKGKEEKEGGARLGAGGGSPEKSPSAQELKEQGNRLFVGRKYPEAAACYGRAITRNPLVAVYYTNRALCYLKMQQ
HEQALADCRRALELDGQSVKAHFFLGQCQLEMESYDEAIANLQRAYSLAKEQRLNFGDDIPSALRIAKKKRWNSI
EERRIHQESSELHSYLSRLIAAERERELEECQRNHEGDEDDSHVRAQQACIEAKHDKYMADMDELFSQVDEKRKKR
DIPDYLCGKISFELMREPCITPSGITYDRKDIEEHLQRVGHFDPVTRSPLTQEQLIPNLAMKEVIDAFISENGWV
EDY

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FIGURE 4366

GCGGAGCTTCCAGGGTCTCTGGGTGCGCAGCGCGGGCGCGGGCTGGAGCCGGCGCCGGGCACGGCATCGGGG
GCCTGGACTGCACGGCCCCGGCAGCAGGTTGGTCTTGGCGTGGGCGTGGGCGCGGGAGGGGCTCGGAGCCAGGGTC
GGCCTGCCCCACCGGGCCTGTGCGGGGCGCGGGTCTGCGCGGACTGCGGGGAGCGAGGAGGCCCCAGCCCTAACCC
GCGCTGCGGGCAGACCTGGCTGCCGGGCCTGGTAGTGCTGCAGCCCCCTCCCCGCCCCACCGCTCGGGCAGAGGCA
TTCACGTGCATCCCCTGGAGGGGAGGGTCTGTGGGGAGGATCTGTGGGGCAGGTTTGGAAACGGGCTCTTTCTCCA
GGCTTAGGTACAGGACGGGCCCTTACAGGTACGCCCGAGCAGGCTGACTCCTTGACTCCCCAGCTGACGCCCTGGG
GACTGATCTCGGGGACTGAGGATGCAGGTGCACAGTAGGGCTGCGGACCCGGCTCGGTGGCTTCGCACCCGAGCC
CGGGTGGGGCGGTGCGGGTACCTCTGTATGCTGGGCTGGGGGCGCACCACGTGCTCACAGCACACGCACCCACGC
GTGGCTCGGCAGGCCGGCCATGGAGCCAGGCAGCGTGGAGAACCTGTCCATCGTGTACCGGAGCCGCGACTTCCT
GGTGGTCAACAAGCACTGGGACGTTGCGATTGACAGCAAGCGTGGCGGGAGACTCTGACCCTGCAGAAGCAGCT
GCGGTACCGCTTTCCCGAGCTGGCCGACCTGACACCTGCTACGGGTTTACAGGTTCTGCCACCAGCTGGATTCTC
CACCAGCGGGGCGCTGTGCGTGGCCCTAAACAAGGCAGCCGCCGGCAGCGCGTACAGGTGCTTCAAGGAGCGGCG
CGTGACCAAGGCTTACCTGGCATTGCTGCGGGGCGACATCCAGGAGAGCCGGGTAACCATCAGCCATGCCATTGG
CAGGAACAGCACGGAGGGCGGGGCCACACCATGTGCATCGAGGGCTCGCAGGGTTGTGAGAACCACAAAGCCAAG
CCTCACAGATCTCGTGGTTCTGGAACACGGGCTGTACGCAGGCGATCCTGTCTCCAAAGTGCTGCTGAAGCCGCT
CACGGGCCGGACACACCAGCTGCGCGTGCAGTGCCTGGGCCACCCCGTGGTGGGCGACCTGACCTACGG
AGAAGTCTCGGGCCGGGAGGACCGCGCTTCAAGATGATGCTGCACGCTTTCTACCTGCGCATCCCCACGGACAC
CGAGTGTGTGGAGGTCTGCACGCCTGACCCCTTCTGCCCTCCCTGGATGCCTGCTGGAGCCCCACACACTGCT
GCAGTCGCTGGACCAGCTCGTGCAGGCCTTACGGGCCACCCCGACCCCTGACCCCGAGGATAGGGGCCCCAGGCC
AGGCAGCCCCTCCGCACTCCTGCCTGGGCCCGGCCGGCTCCTCCACCCCAACCAAGCCCCCTGAGACTGAGGC
ACAGCGGGGCCCTGCCTGCAGTGGCTGTGCGAGTGGACGCTGGAACCGGACAGCTGAGAGCCGTGGGGCTGGGG
CAGGGGGTGTGAGCTGCACAGCGGGACTCTAGGGAGATGGGCGAGCGAGCGTCTGCTCACTGGCTCTGGGGCCTC
GAGGTGCCAGGCAGCATCAGGCCACTGGGTTGCCCGGCCAGGCCTGCGAGGAAGGGCTGAGGTGGGGCCGGCA
GGGGGCGCCAGGCAGCCGTGATCACAGGTGACGACCGCACCGCGGCCGTGGGACTGATGCGGGATCCCGAGGGCC
TTCTGCCCACATGCCCCGGGAGAAACCGAGGCCCTCCCTCCTCCTGGAACAGCTTCCGGCTCTCAAGCGTCAC
CCCAGGGGCGCTCAGTTTACGGACTCAAGGTACCTCAGGAAGAGGCAGGGCCAGGTTTTGGGATAGGCTTTGCC
TCCAGGATGGGCTGCTCCTGGGCCTGGTGAGCTACTGCCCCAACCTACCCTCTAGAGGGGCTGGGAAGGGCCGT
TCTGGGCTCACCTGGCCTGGGAGACCCATCTGGTCCCTGCGTCTCTGCCCCTCACTGCTCTGTGCAGATCCTGT
CGCCCTCAGCTGCCTCCTCCCGAGACCTAATGGTCCCTGCTGGGCTCGAGTCTGCAGGCCCGGCTGCGTGTGCCT
TGGCCTCACTGTACAGTGGTTCCCTCTCTGCCCCGATTCTGAGCTCAGTGTGGTGTGGTGCACAGGGGTTGG
TCAGGGGCCATGGCCAAGGCCCTGCCACGCACGCCCATCCCTCAGATCCACTGTGAGCACCAACCTGCTGCAGTC
TCTTGGGGCCCTGCTGGCAGCTCTGCCACGTACCGCCTGCCTGGCTCCACACAGCCATGCATTGTCACTCTGC
CTCCGGGACCCAGCTTGGGAGCTGTGGGTCTGCCAGGTCCACCTCCTCTGTCCCCATGCCACAACCTGGGCT
CCTGGCTACAGCAGGGCTCCAGGGACTCCAAATAAATGTTTCACTGACTGGCTCCAAGGATGAC

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FIGURE 4367

MEPGSVENLSIVYRSRDFLVVNKHWDVRIDSKAWRETLTLQKQLRYRFPELADPDTCYGFRFCHQLDFSTSGALC
VALNAAAAGSAYRCFKERRVTKAYLALLRGHIQESRVTISHAIGRNSTEGRAHTMCIEGSQGCENPKPSLTDLVV
LEHGLYAGDPVSKVLLKPLTGRTHQLRVHCSALGHPVVGDLTYGEVSGREDRPFRRMLHAFYLRIPTDTECVEVC
TPDPFLPSLDACWSPHTLLQSLDQLVQALRATPDPDPEDRGPRPGSPSALLPGPGRPPPPPTKPPETEAQRGPCL
QWLSEWTLEPDS

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FIGURE 4368

GCGGGAGGTTTCGAGCGGGAGCTCGGGCTCGCGGACGGTATCGAGGACTACGAGCAGGAGCTGTGCGGCGTCGAG
GATGATTTCACAACCAGTTTCGCGGCCGAGCTGGAGGTGCTGGCAGAGCTGGAAGGGGCGTCTGACTCCGTGCCCC
TCCGGGGTCCCCCTGTTACCGCGGGGCCGACCCCCGCGGACGTTTCGAGGAGGCCCTTGCCAGAGGGGACGCGGCC
TCCAGTCCCCGCCCCAGCCGCATCTGTGGGCAGCAGCCAGGGCGGCCAGGAAGAGGCAGGTGGACGCCGACCTG
CAGCCGGCCGGGTCCCTGCCCCACGGTAGGTTGGCGGCATTGCCCCAGGGCCTCCGGAGTGGGCGCGAGGCTGAG
GAGGCCTCTGGTTCCCTGCATGTGTCTCCCCAGCCCCCAGGATCAAACGGCCTAGGCTGCAGGTGGTCAAGAGG
CTGAACTTCAGATCGGAGGAGATGGAGGAGCCGCCCCCTCCCGACTCCTCGCCGACGGACATACCCCCGCCGCCG
AGCCCTGAGGACCTCGCAGAGCTTTGGGGCCACGGAGTCTCAGAAGCTGCTGCCGACGTGGGTCTCACACGGGCC
TCACCAGCTGCCCCGAATCCCGTCTGAGGCGGGCCCCCATCTTGAGGAGTACGTCCACGTGACATCCACGGAG
GGCGTCCGGGCTTATCTGGTGCTGCGTGCTGACCCCATGGCCCCGGGGGTGCAGGGCTCTCTCCTCCACGTCCCA
TGGCGAGGCGGTGGCCAGCTGGACCTGCTGGGTGTGTCTTAGCCTCCCTGAAGAAGCAGGTGCACGGCGAGCGG
CGGGAGCGGCTGCTTCAGGAGGCCCAGAAGCTTTCAGACACCCTGCACAGTCTCAGGTGGGGGAGGAGGAGGCA
GCCCCAGCCCTTGGGGGCCCTGAGGAGGAGCCGACTGACGGTCAAGACGCCTCCAGTCACTGCCTCTGGGTGGAT
GAGTTTGACCCCCGCCACTACACGGAGCTGCTCAGTGATGACTTCACCAACCGCTGCCTGCTCAAGTGGCTGAAG
TTGTGGGACCTGGTGGTGTGGGCCACGAGAGGCCTTCCCGGAAGCCAGGCCAGTGTGAGCCGGCCCGGGTC
AGCAAGGAGGCCACAGCCCCAGGCAAGTGGAAGAGCCACGAACAGGTGCTGGAGGAGATGCTGGAGGCTGGGCTG
GACCCGAGCCAGCGACCGAAGCAGAAGGTGGCACTGCTCTGTGGGCCCCGGGGCTGGGGAAGACCACCTGGCA
CACGTGATTGCGCGTACGCGGGGTACTCTGTGGTGGAGATGAACGCCAGTGACGACCGTAGCCCGAGGTCTTC
CGCACACGCATCGAGGCGGCCACCCAGATGGAGTGGTGCTGGGTGCTGGCGGAAGCCCAACTGCCTGGTTCATC
GATGAGATCGACGGGGCCCCCGTGGCCGCCATCAACGTCTCTGAGCATCCTGAACCGCAAGGGGCCACAGGAG
GTGGGGCCACAGGGCCCGGTGTGCCTTCGGGAGGCGGCCGACGGCGCCGGGCAGAGGGGGGCTCCTCATGAGG
CCCATTATCTGCATTTGCAATGACCAGTTCGCACCGTCCCTGCGGCAGCTGAAGCAGCAGGCCCTTCTGCTCCAC
TTCCCGCCGACTCTGCCCTCGAGGCTGGTGCAGCGCTCCAGGAGGTCTCCCTGCGGCAGGGCATGAGGGCCGAC
CCAGGGGTGCTGGCCGCCCTCTGTGAGAAAAGTACAATGACATCCGGGCCTGCATCAACACCCTGCAGTTCCTG
TACAGCCGGGGCCAGCGGGAGCTGAGCGTGCGGGACGTGCAGGCCACACGCGTGGGCCTCAAGGACCAGCGCAGA
GGGCTCTTCTCGGTGTGGCAGGAGTCTTCCAGTGCCTCGAGCCAGAGGCGCCGTGTGGGCCAGGACCCCGCC
CTGCCTGCTGACACACTCCTGCTGGGTGACGGGGACGCGGGCTCCCTCACCTCCGCTCACAGCGATTCTACCGT
GTCCTGCATGCCGTGCCTCTGCGGGCAGCACGAGAAGGTGGTCCAGGGCTTGTGTTGACAACTTCTGCGTCTG
CGGCTGCGAGACTCCAGCCTGGGTGCTGTGTGTGTGGCCCTCGACTGGCTGGCCCTTCGATGACCTGCTGGCGGG
GCTGCTCATCACAGCCAGAGCTTCCAGCTGCTGCGCTACCCACCCCTTCTGCCCCGTGGCCCTTCCATGTGCTGTTT
GCTTCCAGCCACACACCAGGATCACCTTCCCCAGCAGCCAGCAGGAGGCCCAGAACCGGATGAGCCAGATGAGG
AACCTGATCCAGACGCTGGTGTCCGGCATCGCGCCAGCCACGCGCAGCCGGGCCACGCCCCAGGCCCTGCTCCTC
GATGCCCTCTGCCTGCTCCTGGACATTCTTGACCCCAAGCTCCGCCCCGTGAGCACACAGCTGTACAGCACCCGT
GAAAAGCAACAGCTGGCCAGCCTGGTGGGCACGATGCTCGCTTACAGCCTGACCTACCGCCAGGAGCGCACGCCC
GATGGCCAGTACATCTACAGGCTGGAGCCGAACGTGGAGGAACTCTGCCGCTTCCCTGAGCTGCCTGCCCGAAG
CCCCTACCTACCAGACGAAGCAGCTCATCGCCCGCAGATCGAGGTGGAGAAGATGCGGCGGGCGGAGGCTTCT
GCCCGGGTAGAGAACAGCCCCCAGGTGGATGGGAGCCCCCAGGGCTCGAGGGTCTGCTGGGGGGCATTGGGGAG
AAAGGGGTGCACCGACCTGCCCCACGCAACCATGAGCAGCGGTGGAGCACATCATGAGGCGAGCGGCCCCGGGAG
GAACAGCCTGAGAAGGACTTCTTTGGACGTGTGGTCTGTCAGGAGCACAGCAGTCCCGAGTGCAGGGGACACGGCC
CCGGAGCAGGACTCAGTGGAGCGGCGCATGGGCACAGCGGTGGGCAGGAGCGAGGTCTGGTTCCGCTTCAACGAG
GGTGTCTCCAACGCCGTGCGGCGCAGCCTGTACATCAGGGAAGTCTAGTCTCTGAGCCGCGGACATGCCCT
CGCATGCTTCCCGCAGAGTGCAGAGACAGGAAGCTGGAGATGTCTTTATAAAGTCACACCTTTACAGACTGT

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FIGURE 4369

MEDYEQELCGVEDDFHNQFAAELEVLAELEGASTPSPSGVPLFTAGRPPRTFEEALARGDAASSPAPAASVGSSQ
GGARKRQVDADLQFAGSLPHGRLAALFQGLRSGREAEAEASGSLHVSPAPRIKRPRQLQVVKRLNFRSEEMEPPPP
PDSSPTDITPPPSPEDLAELWGHGVSEAAADVGLTRASPAARNPVLRRPPILEDYVHVTSTEGVRAYLVLRADPM
APGVQGSLLHVPWRGGGQDLDLLGVSLASLKKQVDGERRERLLQEAQKLSDTLHSLRSGEEEAQPLGAPEEEPTD
GQDASSHCLWVDEFAPRHYTELLSDDFTNRCLLKWKLWDLVVFGERPSRKPRPSVEPARVSKEATAPGKWKSH
EQVLEEMLEAGLDPSQRPKQKVALLCGPPGLGKTTLAHVIAHAGYSVEMNASDDRSPEVFRTRIEAATQMESV
LGAGGKPNCLVIDEIDGAPVAAINVLLSILNRKGPQEVGPQGPVPSGGGRRRAEGGLLMRPIICICNDQFAPS
LRQLKQQAFLHFPPTLP SRLVQRLQEVSLRQGMRADPGVLAALCEKTDNDIRACINTLQFLYSRGQRELSVRDV
QATRVGLKDQRRGLFSVWQEVFQLPRAQRRRVGQDPALPADTLLLGDGDAGSLTSASQRFYRVLHAAASAGEHEK
VVQGLFDNFLRLRLRDLSSLGAVCVALDWLAFDDLLAGAAHHSQS FQLLRYPFPLPVAFHVLFASSHTPRITFPSS
QQEAQNRMSQMRNLIQTLVSGIAPATRSRATPQALLLDALCLLLDILAPKLRPVSTQLYSTREKQQLASLVGTML
AYSLTYRQERTPDGQYIYRLEPNVEELCRFPPELPARKPLTYQTKQLIAREIEVEKMRRAEASARVENSPQVDGSP
PGLEGLLGIGEGKVHRPAPRNHEQRLEHIMRRAAREEQPEKDFFGRVVVRSTAVPSAGDTAPEQDSVERRMGTA
VGRSEVWFRFNEGVSNAVRRSLYIRDLL

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FIGURE 4370

ATGGGTAGACGCCGGGCGCGGGGCGGGGCGCGGGGCGCGCGCTTAAAGAAACTTGTGTGCGGGTCCCGCAGCGGGGACC
CGAGCCTCGGCGGCGGCGGCGGCGGCGGCAGGGGCGAGGGTTCGGGGCCACCGCGCGGCGACCTCGGGTCCCGGAG
CGACCGCAGGGCAGCCCCGGGCGCGGCCCCGCTGCGCGTCTCCTGTGCGCGCCCCCTCCGCGCGCGGGCCCCGATG
CTGGACATGAGCGAGGCCCGCTCCCAGCGCCCTGCAGCCCGTCCGGCACCGCCAGCTCCATGTGCGACGTGGA
GACTCGGACTCGGACGCGCGCCGTCTCCCGCCGGCTCCGAGGGCCTGGGCGCGCGGGGGTTCGCGGTGGGGGGC
GCCCGGGGCGACCCGGCGGAGGCGGCGGACGAGCGCTTCCCGGCCGTGCATCCGCGACGCCGTGTGCGAGGTGCTC
AAGGGCTACGACTGGAGTCTGGTGCCCATGCCGGTTCGCGGGCGGCGGCGGCGCGCTCAAAGCCAAGCCGCAT
GTGAAGCGGGCCCATGAACGCAATTCATGGTGTGGGCGCAGGCGGCGCGCCGCAAGCTGGCCGACCAGTACCCGCAC
CTGCACAACGCCGAGCTCAGCAAGACGCTGGGCAAGCTGTGGCGCTTGCTGAGCGAGAGCGAGAAGCGGGCCCTTC
GTGGAGGAGGCAGAGCGCCTTCGCGTGCAGCACAGAAGGACCACCCGACTACAAGTACCAGCCACGGCGCAGG
AAGAGCGCCAAAGCCGGCCACAGCGACTCCGACTCGGGCGCGGAGCTGGGACCCACCCCTGGCGGCGGTGCCGTG
TACAAGGCTGAAGCAGGGCTTGAGATGGGCACCACCATGGCGACCACACAGGGCAGACCCACGGGCCGCCACC
CCGCCACCACCCCAAGACGGAGCTGCAGCAGGCGGGCGCCAAAGCCGGAGCTGAAGCTGGAGGGACGCCGGCCG
GTGGACAGCGGGCGCCAGAACATCGACTTCAGCAACGTGGACATCTCGGAGCTCAGCAGCGAGGTCTATGGGCACC
ATGGACGCCTTCGACGTCCACGAGTTCGACCAGTACCTGCCCTTGGGCGGCCCGCCCCACCCGAGCCGGGCCAG
GCCTATGGGGGCGCCTACTTCCACGCGCGGGGCGTCCCCCGTGTGGGCCACAAAGAGTGGCCCGTTCGGCTCCGCG
TCGCCCACCGAGACGGGTCCCCACGGCGCACATCAAGACGGAGCAGCCGAGCCCCGGCCACTACGGCGACACAG
CCCCGAGGCTCGCCCGACTACGGTTCTGCGAGCGGCCAGTCCAGCGCCACCCGGCCGCCCGCCGGCCCCCTTC
GCCGGCTCACAGGGCGACTATGGCGACCTGCAGGCCTCCAGTACTATGGTGCTTACCCTGGGTACGCACCCGGC
CTCTACCAGTACCCCTGCTTCCACTCGCGCGCGCGGCCCTACGCCTCACCCCTGCTCAACGGCCTGGCCCTGCCG
CCCCCCACAGCCCCACCAGTCACTGGGACCAGCCGGTGTACACCACCTGACCAGGCCCTGA

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FIGURE 4371

MGSRARGGAAGPPLKETCCGSRSGTRASAAAAAAGARVGATARRPRVPERPQGSPGRRPRCASPVRAPPRAAPM
LDMSEARSQPPCSPSGTASSMSHVEDSDSDAPPSPAGSEGLGRAGVAVGGARGDPAEAAADERFPACIRDAVSQVL
KGYDWSLVPMPVRGGGGALKAKPHVKRPMNAFMVWAQAARRKLADQYPHLHNAELSKTLGKLWRLLESEKRPF
VEEAERLRVQHKKDHPDYKYQPRRRKSAKAGHSDSDSGAELGPHPGGGAVYKAEAGLGDGHHHGDHTGQTHGPPT
PPTTPKTELQQAGAKPELKLEGRRPVDSGRQNIDFSNVDISELSSEVMGTMDAFDVHEFDQYLP LGGPAPPEPGQ
AYGGAYFHAGASPVWAHKSAPSASASPTETGPPRPHIKTEQPSPGHYGDQPRGSPDYGSCSGQSSATPAAPAGPF
AGSQGDYGDLQASSYYGAYPGYAPGLYQYPCFHSRRPYASPLLNGLALPPAHSP TSHWDQPVYTTLTRP

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FIGURE 4372A

GGCACGAGGCCGGCGCTTCCCGGCCGGTGTGCTCCGCGCGGGGCCATGGCCAACGTCTCTAAGAAGGTGTCTCTG
GTCCGGCCGGGACCGGGACGACGAGGAGGCGCGCCGCTGCTGCGGAGGACGGCGCGGCCCGGGGGGACGCC
GCTGCTGAACGGGGCTGGGCCTGGGGCTGCGCGCCAGTACCACGTTCTGCGCTTTTCCGAGTCGGACATATGAG
CAGCGTGGAGCTGGATGATGAACTTTTGGACC CGGATATGGACCCTCCACATCCCTTCCCCAAGGAGATCCCACA
CAACGAGAAGCTCCTGTCCCTCAAGTATGAGAGCTTGGACTATGACAACAGTGAGAACCAGCTGTTCTCTGGAGGA
GGAGCGGCGGATCAATCACACGGCCTTCCGGACGGTGGAGATCAAGCGCTGGGTTCATCTGCGCCCTCATTGGGAT
CCTCACGGGCCTCGTGGCCTGCTTCATTGACATCGTGGTGGAAACCTGGCTGGCCTCAAGTACAGGGTCATCAA
GGGCAATATCGACAAGTTCACAGAGAAGGGCGGACTGTCTTCTCCCTGTTGCTGTGGGCCACGCTGAACGCCCG
CTTCGTGCTCGTGGGCTCTGTGATTGTGGCTTTCATAGAGCGGTGGCTGCTGGCAGCGGAATCCCCCAGATCAA
GTGCTTCTCAACGGGGTGAAGATCCCCACGTGGTGGCGCTCAAGACGTTGGTGATCAAAGTGTCCGGTGTGAT
CCTGTCCGTGGTGGGGGCTGGCCGTGGGAAAGGAAGGGCCGATGATCCACTCAGGTTCAAGTGTTCGGCCCGG
GATCTCTCAGGGAAGGTCAACGTCACTGAAACGAGATTTCAAGATCTTCGAGTACTTCCGACAGACACAGAGAA
GCGGGACTTCGTCTCCGACGGGGCTGCGGCCGGAGTGTGACGGCGTTGGAGCCCCGTGGGTGGGGTCTGTGT
CAGCTTGGAGGAGGGTGCCTCTTCTGGAACAGTTCCTGACCTGGAGGATCTTCTTGTCTCCATGATCTCCAC
GTTACCCCTGAATTTTGTCTGAGCATTACCACGGGAACATGTGGGACCTGTCCAGCCCAGGCCTCATCAACTT
CGGAAGGTTTGAAGTGGAGAAAATGGCCTACACGATCCACGAGATCCCGGTCTTCATCGCCATGGGCGTGGTGGG
CGGTGTGCTTGGAGCAGTGTCAATGCCTTGAAGTACTGGCTGACCATGTTTCGAATCAGGTACATCCACCGGCC
CTGCCGTGACGGTGAATTGAGGCCGTGCTGGTGGCCGCCGTGACGGCCACAGTTGCCCTTCGTGCTGATCTACTCGTC
GCGGGATTGCCAGCCCCGTGACGGGGGGCTCCATGTCTACCCGCTGACGCTCTTTTGTGACAGTGGCGAGTACAA
CTCCATGGCTGCGGCCCTTCTTCAACACCCCGGAGAAGAGCGTGGTGAACCTCTTCCACGACCCGCCAGGCTCCTA
CAACCCCTGACCCCTCGGCCCTGTTACGCTGGTCTACTTCTTCTTGGCCTGCTGGACCTACGGGCTCACGGTGTCT
TGCCGGGGTCTTCATCCCGTCCCTGCTCATCGGGGCTGCTGGGGCCGGCTCTTTGGGATCTCCCTGTCTACCT
CACGGGGGCGGCGATCTGGGCGGACCCCGGCAAATACGCCCTGATGGGAGCTGCTGCCAGCTGGGCGGGATTGT
GCGGATGACACTGAGCCTGACCGTCATCATGATGGAGGCCACCAGCAACGTGACCTACGGCTTCCCCATCATGCT
GGTGTCTATGACCGCAAGATCGTGGGCGACGTCTTCATTGAGGGCTGTACGACATGCACATTAGCTGCAGAG
TGTGCCCTTCTGCACTGGGAGGCCCCGTCACCTCACACTCACTCACTGCCAGGGAGGTGATGAGCACACCAGT
GACCTGCCTGAGGCGGCGTGAGAAGGTGCGCGTCATTGTGGACGTGCTGAGCGACACGGCGTCCAATACAACGG
CTTCCCGTGGTGGAGCATGCCGATGACACCCAGCCTGCCCGGCTCCAGGGCTGATCCTGCGCTCCAGCTCAT
CGTCTCTCTAAAGCACAGGTGTTTGTGGAGCGGTCCAACCTGGGCTGGTACAGCGGCGCCTGAGGCTGAAGGA
CTTCCGAGACGCTACCCGCGCTTCCACCCATCCAGTCCATCCACGTGTCCAGGACGAGCGGGAGTGACCAT
GGACCTCTCCGAGTTCATGAACCCCTCCCCCTACACGGTGGCCAGGAGGCGTCCCTCCACGGGTGTTCAAGCT
GTTCCGGGCCCTGGGCTGCGGCACCTGGTGGTGGTGGACAACCGCAATCAGGTTGTGCGGTGGTGACCAGGAA
GGACCTCGCCAGGTACCGCTGGGAAAGAGAGGCTTGGAGGAGCTCTGCTGGCCAGACGTGAGGGCCAGCCCT
GCCATAATGGGCACTGGCGCTGGCACCCCGGCCCTTCTGCATTTCTCCCGGAGTCACTGGTTTCTCGGCCCAA
ACCATGCTCCCCAGCAGTGGAATGGCGAGCACCTGACGCTGGGCGGGCAGGCGGCAGGCGCGGAAGTACCCCT
CTCGCGGGACTGACCCCTGTTGTGGGCAGTGGTCTCCCCCTTGGCGCCTCCTTGGCGAGGCCAGCCTCCACTCT
CCTCGTCTAGGTTTCTTTACCTCCAGGGATCAGCTGTGTGTGTGTGACCTCCCTACCGGGCTATCGGCCTCTTGG
GAGCCAGCGGCAGGGCCGGCACCTGCGTGCTGTGCCCGTGTGCTGAGACAGAGCCCTTGCCCTGCTGCTGCC
CCGAGGGCTGCCCTGCCCTGGAAGGGCCCCCTCTGCCTCCACACAGTGGAGTCTTCGAGACTTGGGAGCTGCTTG
GCCTCATTTTTCAGCCATGAGCAGACGGCCTGTGGTCCCTGGGCCTGAGGCACGGACTCGTAGCACCAGGGTTTGG
AGGCTGCGACCGCCCCGGAGAGCAGCTTACACTGGCGCCACAGAGGAGCCCCACGTGCACTCCCCGGCCTGCAT
CCGGCTTGGGTACACGGGCCAGAGGACTGGGGTGAATCACGGGCCCTGTGCTGTGATGTTGAGAGCTGAGAAAA
ACCTCCAAGGCCCTGAGCCCCATGCCAGCCCTGCCTTGGTCCCCCAACCCCCAGAGCTTGGAGTCTGGGCCCA
CACCCAGCCCTGCCTTGGTCCCTGAGCCTCAGAGCGTGAATTGCTGCCCTGTGGACACTGGCTGGGAAGGCAGG
TCTTCCCCTAGCACATGGGGACCCCGGCCTCGAGGGTGACCTCCCTACCTTGCCCCCTGCCAGCCACCAAGCGCAG
GTGACGGGGGGCCAGACTCCTGCCGGCCTCAGAGGACACCTGGCCAGCACAGGCAGCTAGAAGGGCCGGTGGG
CACCGGGGCCGGGAAGCCCCCACCTCACACCTGAGGGCCCCCTGGGAGGCTCCTCTGGCCTGGCTGGGCTGGGTC
TGGGGCCGCCACAGGCCCTCACGGGGCGGCAGAGGCAACTCAGTGTCCCTGTTAGAGCAACACGGGTCCCTCC

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FIGURE 4372B

GTGGGGGGCTGGGTGCGGCCCCCTGCCGTGTATTTCCTCCCCAGGGAGTGGGGCCTCCCCGGGAGCTGACGCCAC
CACCTGCTTAGCCCTCACAGGGCCCCAAGGTGTCCGAGTGTGTTGGGTCTGAACGCGAAATAAAGAAATCCTCT
CAAAAAAAAAAAAAAAAAA

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FIGURE 4373

MANVSKKVSWSGRDRDDEEAAPLLRRTARPGGGTPLLNAGPGAARQSPRSALFRVGHMSSVELDDELDPDMDP
PHFPKEIPHNEKLLSLKYESLDYDNSENQLFLEEERRINHTAFRTVEIKRWVICALIGILTGLVACFIDIVVEN
LAGLKYRVIKGNIDKFTEKGGLSFSLLLWATLNAAFVLVGSVIVAFIEPVAAGSGIPQIKCFLNGVKIPHVRLK
TLVIKVS GVILSVVGGLAVGKEGPMIHSGSVIAAGISQGRSTSLKRDFKIFEYFRDTEKRDFVSAGAAAGVSAA
FGAPVGGVLFSL EEGASF WNQFLTWRIF FASMISTFTLNFVLSIYHG NMWDLSSPGLINFGREFDSEK MAYTIHEI
PVFIAMGVVGGV LGAVFNALNYWLTMFRI RYIHRPCLQVIEAVLVA AVTATVAFVLIYSSRDCQPLQGGSMSYPL
QLFCADGEYNSMAAAFFNTPEKSVVSLFHDPPGSYNPLTLGLFTLVYFFLACWTYGLTVSAGVFIPSL LIGAAWG
RLFGISLSYLTGAAIWADPGKYALMGAAQLGGIVRMTLSLTVIMMEATSNVTYGFPI MLVLMTAKIVGDVFIEG
LYDMHIQLQSV PFLHWEAPVTSHSLTAREVMSTPVTCLRRREKVGVI DVLSDTASNHN GFVVEHADD TQPARL
QGLILRSQLIVLLKHKVFVERSNLGLVQRRRLRKDFRDAYPRFPPIQSIHVSQDERECTMDLSEFMNPSPYTVPQ
EASLPRVFKLFRALGLRHLVVVDNRNQVVG LVTRKDLARYRLGKRGLEELSLAQT

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FIGURE 4374

[illegible]

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FIGURE 4375

MEPAPSEVRLAVREAIHALSSSEDGGHIFCTLES LKRYLGEMEPPALPREKEEFASAHFSPVLRCLASRLSPA WL
ELLPHGRLEELWASFFLEGPADQAFVLVLMETIEGAAGPSFRLMKMARLLARFLREGR LAVLMEAQCRQQTREPGFI
LLRETL LGKVVALPDHLGNRLQQENLAEFFPQNYFRLLGEEVVRVLQAVVDSLQGGLDSSVSFVSQVLGKACVHG
RQQEILGVLPRLAALTQGSYLHQRVCWRLVEQVPDRAMEAVLTGLVEAALGPEVLSRLLGNLVVKNKKAQFVMT
QKLLFLQSRLTTPMLQSLLGHLAMDSQRRPLLLQVLKELLE TWGSSSAIRHTPLPQQRHVSKAVLICLAQLGEPE
LRDSRDELLASMMAGVKCRLDSSLPPVRR LGMIVAEVVSARIHPEGPPLKFQYEEDELSLELLALASPQAGDGA
SEAGTSLVPATAEPPAETPAEIVDGGVPQAQLAGSDSDLDSDDEFVPYDMSGDRELKSSKAPAYVRDCVEALTTS
EDIERWEAALRALEGLVYRSPTATREVSVELAKVLLHLEEKTCVVGFA GLRQRALVAVTVTDPAFVADYLT SQFY
ALNYS LRQRM DILDVLT LAAQELSRPGCLGRTPQPGSPSPNTPCLPEAAVSQPGSAVASDWRVVVEERIRSKTOR
LSKGGPRQGPAGSPSRFNSVAGHFFFLLQRFDRPLVTFDILLGEDQLVLGRLAHTLGALMCLAVNTTVAVAMGKA
LLEFVWALRFHIDAYVRQGLLSAVSSVLLSLPAARLLEDLMDELLEARSWLADVAEKDPDEDCRTLALRALLLLQ
RLKNRLLPPASP

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FIGURE 4376

CGCTCCCGCACCGCCATCATGATCTGCCTGGTGCTGACCATCTTCGCTAACCTCTTCCCCGCGGCCTGCACCGGC
GCACACGAACGCACCTTCCTGGCCGTGAAGCCGGACGGCGTGACGCGCGGCTGGTGGGCGAGATTGTGCGGCGC
TTCGAGAGGAAGGGCTTCAAGTTGGTGGCGCTGAAGCTGGTGACGGCCTCCGAGGAGCTGCTGCGTGAGCACTAC
GCCGAGCTGCGTGAACGCCCCGTTCTACGGCCGCTTGTCAAGTATATGGCCTCCGGGCGCGGTGGTGGCCATGGTT
TGGCAGGGGCTGGACGTGGTGCACCTCGCGGGCGCTCATCGGAGCCACGAACCCGGCCGACGCCCCGCCCGGC
ACCATCCGCGGGGATTTCTGCATCGAGGTTGGCAAGAACCTGATTACGGCAGCGACTCGGTGGAGAGTGCCCGC
CGCGAGATCGCTCTCTGGTTCCGCGCAGACGAGCTCCTCTGCTGGGAGGACAGCGCTGGGCACTGGCTGTATGAG
TAGCCCCGCGAGATGCGCGTCACAGAGGCTCTCACACTCCAGCCTCCTCCAGGGCCCAGGTGGGCGGGCTTCTGGC
CCCACCCACAGCGCTTGGAGCATCCCTTTGGACGGGCTGCTGAACATCCACCTGTCTGGACGTTGCATGGAGGG
TGGCGCAGGCCTCTCCAATCCCTGGCGTACAGGGTTTCTGCCCCGAGGAGCTGCTCCAGGAGCCTGCGCGGCTCG
CCTGGAAACGTGCCAGGACACTGTCCTGGTGCCAGCCCCAACGTGGTCCAACGTTTTTTTATAATAAAGTCCTCG
TTTTCGTT

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FIGURE 4377

MICLVLTIFANLFPAACTGAHERTFLAVKPDGVQRRLVGEIVRRFERKGFKLVALKLVQASEELLREHYAELRER
PFYGRLVKYMASGPVVAMVWQGLDVVRTSRALIGATNPADAPPGTIRGDFCIEVGKNLIHGSDSVESARREIALW
FRADELLCWEDSAGHWLYE

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FIGURE 4378

GCTGAGGACGCGGACCCGCCATGGCGCGGAAGAAGGTGCGTCCGCGGCTGATCGCGGAGCTGGCCCGCCGCGTGCGCGCCCTGCGGGAGCAACTGAACAGGCCGCGCGACTCCCAGCTCTACGCGGTGGACTACGAGACCTTGACGCGGCCTTCTCTGGACGCCGGCTGCCGGTCCGGGCCCTGGGCCGACGTGCGCCGCGAGAGCCGCTCTTGACAGCTGCTCGGCCCTCCCGCTCTTCGGCCTGGGCCCGCTGGTCACGCGCAAGTCTTGCTGTGGCAGCACGACGAGCCGTGCTACTGGCGCCTCACGCGGTGCGGCCCGACTACACGGCGCAGAACTTGGACCACGGGAAGGCCTGGGGCATCCTGACCTTCAAAGGGAAGACTGAGAGCGAGGCGCGGGAGATCGAACACGTGATGTACCATGACTGGCGGCTGGTGCCCAAGCACGAGGAGGAGGCCTTACCGCGTTTACGCGCGCGCCGGAAGACAGCCTGGCCTCCGTGCCGTACCCGCCTCTCCTCCGGGCCATGATTATCGCAGAACGACAGAAAAATGGAGACACAAGCACCGAGGAGCCCATGCTGAATGTGCAGAGGATACGCATGGAACCCCTGGGATTACCCTGCAAAACAGGAAGACAAAGGAAGGGCCAAGGGCACCCCGCTCTAGAATGCCAGAACCAGCGGTGGCCTTAGGGGCTGTGAGGCAGTGGGGACCTTATTGATGAAAGAAACCGTCTTTGCGTTACACCCGAGTCTGCCTCTCGGAGCAGGGAGCTCACCTTCCGCGACGTGTTCTGAGGGTCTGCATCTTAGGGGGAGGGCTGGGGCAAATCGCCACCTGTGCCTTTTCTCTGGCCCTGCTGCCCCACACCCAACTCCGAGGGCCCACGCTGGGGAAAGCGGGAAGCGCTCGCTCCCTTTCCCCCATTAGTGCTCTCTCTGCCTGGATCCCGGCAGAAGCTATGAAAGGGAATAAAGAGAAAAAGTAAGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4379

MARKKVRPRLIAELARRVRALREQLNRPRDSQLYAVDYETLTRPFSGRRLPVRAWADVRRRESRLQLLGRLLPLFG
LGRLVTRKSWLWQHDEPCYWRLTRVRPDYTAQNLDHGKAWGILTFKGKTESEAREIEHVMYHDWRLVPKHEEEAF
TAFTPAPEDSLASVPYPPLLRAMI IAERQKNGDTSTEEPMLNVQIRMEPWDYPAKQEDKGRAKGTPV

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FIGURE 4380

CTGGGAGGCTGACGGCCCGCGGGCGTAAGCGGACTGCAGCCGCGAGCTCCTGGAGGCGGCGGGATCGAGGCGGCG
GCCGAGCCTGGAAACCTGGCCGGCGTCAGGCACATCATCCTGGTCCTCTCAGGAAAGGGGGGCGTTGGGAAAAGC
ACCATCTCCACGGAGCTGGCCCTGGCACTGCGCCATGCAGGCAAGAAGGTGGGAATCCTGGATGTGGACCTGTGT
GGCCCCAGTATACCCCGCATGCTCGGGGCGCAGGGCAGGGCTGTGCACCAAGTGCAGCCGCGGCTGGGCACCCGTC
TTCCTGGACCGGGAGCAGAGCATCTCGCTCATGTCTGTGGGCTTCCTGCTGGAGAAGCCGGACGAGGCCGTGGTG
TGGAGAGGCCCAAGAAAAACGCGCTGATAAAGCAGTTTGTGTCCGACGTGGCCTGGGGGGAGCTGGACTACCTG
GTGGTGGACACGCCCCGGGGACCTCCGATGAGCACATGGCCACCATAGAAGCCCTGCGTCCCTACCAGCCCCTG
GGGGCCCTCGTGGTCACACGCCCCAGGCGGTGTCCGTGGGGGACGTGAGGCGCGAGCTGACCTTCTGTAGGAAG
ACGGGCTTGCGGGTGATGGGAATCGTGGAGAATATGAGCGGCTTCACCTGCCCACACTGCACGGAGTGCACCAGC
GTCTTCTCCAGGGGCGGCGGAGAGGAGCTGGCCAGCTCGCCGGGGTGCCCTTCTTAGGCTCCGTGCCCTGGAC
CCTGCGCTCATGAGGACCCTGGAGGAGGGCCACGACTTCATCCAGGAGTTCCCCGGGAGCCCCGCCTTCGCTGCA
CTCACCTCCATAGCCCAGAAGATTCTGGACGCGACGCCCGCGTGCCTCCCCTGACTAAGGCCACCTTGCAGCCGC
TTTCCAGGGCCACCAAGGGCTCTGCTCCAGCCTCTCAGAGAAACAGAGGCCTGGGCTCGGTTCCCGGGCCCTGCA
GGGGCAGGCCCCAGGCAGCGTCAGCGGGAGAGCTTCTCCCCGACCAGCCCAGCCCCAGGATGTGTGCGACCAGCAG
CTCTGCCTGGTTGGCCTGCAGTGCCGTGGTCTGCGTGCTCTGCAGCTGTGAGACGGGGGCGGCCTGGGCTCTCTT
CCCATCCATGTTGCCTACCTGTGCCCCCTGGCAGCCGCGTGTCCACACAGTTAGCGGAGCGCAGGACTTCTGCAGT
CCTCAGGTGACCCCGGGCCTCCAGCACCTGGGTGCTGTATCTGTGTTTAGCTCGGGGAGTCCCCCTAAGGG
GGCGAACTGACCTCAGGCATGTCTTGTAAGTGTAGAGGCGCCTGCCATTAAACGTGTCCGCTGCTGTGGCGACAG

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FIGURE 4381

MEAAAEFGNLAGVRHIIILVLSGKGGVGKSTISTELALALRHAGKKVGILDVDLCGPSIPRMLGAQGRAVHQCDRG
WAPVFLDREQSISLMSVGFLLEKPD EAVVWRGP KKNALIKQFVSDVAWGELDYL VVDTPPGTSDEHMATIEALRP
YQPLGALVVTTTPQAVSVGDVRRELTFCRKTGLRVMGIVENMSGFTCPHCTECTSVFSRGGGEELAQLAGVPFLGS
VPLDPALMRTLEEGHDFIQEFPGSPAFAALTSIAQKILDATPACLP

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FIGURE 4382

CAAAACACCAAATGGCGGATGACGCCGGTGCAGCGGGGGGGCCCGGGGGCCCTGGTGGCCCTGGGATGGGGAACC
GCGGTGGCTTCCGCGGAGGTTTCGGCAGTGGCATCCGGGGCCGGGGTTCGCGGCCGTGGACGGGGCCGGGGCCGAG
GCCGCGGAGCTCGCGGAGGCAAGGCCGAGGATAAGGAGTGGATGCCCCGCACCAAGTTGGGCCGCTTGGTCAAGG
ACATGAAGATCAAGTCCCTGGAGGAGATCTATCTCTTCTCCCTGCCCATTAAGGAATCAGAGATCATTGATTTCT
TCCTGGGGGGCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCCGGCCAGCGCA
CCAGGTTCAAGGCATTTGTTGCTATCGGGGACTACAATGGCCACGTCGGTCTGGGTGTTAAGTGCTCCAAGGAGG
TGGCCACCGCCATCCGTGGGGCCATCATCCTGGCCAAGCTCTCCATCGTCCCCGTGCGCAGAGGCTACTGGGGGA
ACAAGATCGGCAAGCCCCACACTGTCCCTTGCAAGGTGACAGGCCGCTGCGGCTCTGTGCTGGTACGCCTCATCC
CTGCACCCAGGGGCACTGGCATCGTCTCCGCACCTGTGCCTAAGAAGCTGCTCATGATGGCTGGTATCGATGACT
GCTACACCTCAGCCCGGGGCTGCACTGCCACCCTGGGCAACTTCGCCAAGGCCACCTTTGATGCCATTTCTAAGA
CCTACAGCTACCTGACCCCGACCTCTGGAAGGAGACTGTATTACCAAGTCTCCCTATCAGGAGTTCACTGACC
ACCTCGTCAAGACCCACACCAGAGTCTCCGTGCAGCGGACTCAGGCTCCAGCTGTGGCTACAACATAGGGTTTTT
ATACAAGAAAAATAAAGTGAATTAAGCCTGAAA
AAA

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FIGURE 4383

MADDAGAAGGPGGPGGPGMGNRGGFRGGFGSGIRGRGRGRGRGRGRGRGARGGKAEDKEWMPVTKLGRRLVKDMKI
KSLEEIYLFSLPIKESEIIDFFLGASLKDEVKIMPVQKQTRAGQRTRFKAFVAIGDYNGHVGLGVKCSKEVATA
IRGAIILAKLSIVPVRRGYWGNKIGKPHTVPCKVTGRCGSVLVRLIPAPRGTGIVSAFVPKKLLMMAGIDDCYTS
ARGCTATLGNFAKATFDAISKTYSLTPDLWKETVFTKSPYQEFTDHLVKTHTRVSVQRTQAPAVATT

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FIGURE 4384

GGGAGTGTGGCGTTCTGTGAAGAGTTCCGTGCTAACCTCCCTCACGCGGCGGTGGCTGCCGGGACCCTAGCAGGT
TTCAGCTGGAGCGGCGGCGGCGGCAACATGGCAGAGACCGCGGCGGAGTGGGCGCTTCAAGACCAACTATGCT
GTGGAGCGCAAAATTGAGCCTTTCTACAAGGGCGGAAAAGCACAGCTGGACCAGACTGGCCAGCACCTCTTCTGC
GTCTGTGGCACCAGAGTCAACATTCTGGAAGTGGCCTCGGGGGCCGTGCTGCGGAGTCTGGAGCAGGAGGACCAG
GAGGACATCACTGCCTTTGACCTCAGCCCTGACAACGAGGTGCTGGTGACAGCCAGTCGGGCATTGCTGCTGGCT
CAGTGGGCGCTGGCAAGAGGGCAGCGTTACCCGCTGTGGAAGGCGATACACACGGCCCCCGTGGCCACCATGGCC
TTCGACCCACCTCCACTCTGCTAGCCACAGGTGGCTGTGATGGGGCCGTGCGCGTCTGGGACATCGTGGGCAC
TACGGGACACACCACTTCCGAGGCTCGCCCGGTGTCGTGCACCTAGTGGCCTTCCACCCGACCCCTACACGCCTG
CTGCTCTTCTCCTCGGCCACGGATGCCGCCATCCGCGTGTGGTCACTGCAGGACCGGTCATGCCTGGCTGTGCTG
ACTGCCCACTACAGCGCCGTACCTCACTGGCCTTACAGCGCCGACGGCCACACCATGCTCAGCTCCGGCCGTGAC
AAGATATGTATCATCTGGGACCTTCAAGCTGCCAGGCCACGAGGACCGTGCCTGTGTTTGAGAGCGTGGAGGCT
GCTGTGCTGTTGCCAGAGGAGCCAGTGTCCCAGCTGGGTGTGAAGTCCCCAGGGCTGTACTTTCTGACAGCTGGC
GACCAAGGCACTCTGCGCGTGTGGGAGGCAGCTTCTGGGCAGTGTGTGTACACGCAGGCCACGCCCGGGCCCT
GGGCAGGAGCTGACCACTGCACCTTGGCACACACCGCCGGCGTGGTCTCACCGCCACCGCCGACCACAACCTG
TTGCTCTACGAGGCTCGCTCCCTGCGGCTGCAGAAACAGTTCGCTGGCTACAGTGAGGAGGTTTGGATGTCCGG
TTTCTTGGGCGCGAGGACTCCACGTTGTCTGTGGCCTCCAATAGCCCCTGCCTAAAAGTGTTTGAGCTGCAGACG
TCAGCCTGCCAGATCCTCCACGGCCACACGGATATCGTCTGGCCCTGGATGTGTTCCGGAAGGGGTGGCTCTTT
GCCAGCTGTGCCAAGGATCAGAGCGTCCGTATCTGGAGAATGAACAAGGCTGGCCAGGTGATGTGCGTGGCTCAG
GGTTCCGGTCACACACACAGTGTGGGCACCGTCTGCTGCTCTAGGCTGAAGGAGTCTTCTGGTGACAGGCAGC
CAGGACTGCACTGTGAAGCTGTGGCCTCTTCCCAAAGCCTTGTCTGTCCAAGAACACAGCCCCAGACAACGGCCCT
ATCCTCCTGCAGGCCCAGACCACTCAGCGCTGCCATGATAAGGACATCAACAGCGTGGCTATTGCCCCAACGAC
AAGCTGCTGGCCACAGGCTCAGAGACCGCACGGCCAAGCTCTGGGCCCTGCCACAGTGCCAGCTGCTGGGTGTC
TTCTCAGGCCACCGGCGTGGCCTCTGGTGCGTCCAGTTCTCTCCCATGGACCAGGTGCTGGCCACGGCCTCAGCT
GATGGCACCATCAAGCTCTGGGCACTCCAGGACTTCAGCTGTCTCAAGACATTTGAGGGGCACGATGCTTCTGTG
CTGAAGGTGGCCTTTGTGAGCCGTGGCACGCAGCTGCTGTCCAGCGGTTCCGATGGCCTCGTGAAGCTCTGGACC
ATCAAGAACAACGAGTGTGTGCGGACGCTGGATGCCCACGAGGACAAGGTCTGGGGGCTGCACTGCAGCCGGCTG
GACGACCACGCCCTCACTGGGGCCAGTGACTCCCGAGTCATCTCTGGAAGGATGTGACCGAGGCGGAGCAGGCA
GAGGAGCAGGCCAGGCAAGAGGAGCAGGTGGTCAGGCAGCAAGAGCTGGACAACCTGCTGCATGAGAAGCGGTAC
CTGCGGGCGCTGGGCCTGGCCATCTCCCTGGATCGGCCCCACACCGTGTGCTGCTCATCCAGGCCATCCGGAGG
GACCTTGAGGCCTGCGAGAAGCTGGAAGCCACCATGCTCCGACTGCGGCGCGACCAGAAAGAGGCCCTGCTGCGC
TTCTGCGTCACGTGGAACACCAACTCGCGGCACTGCCACGAGGCCCAGGCCGTGCTGGGTGTGCTCTTGAGGCGA
GAGGCCCCCGAGGAGCTGCTGGCCTACGAAGGCGTGGCGGCAGCGCTTGAGGCCCTGCTGCCCTACACTGAGCGG
CACTTTCAGCGGCTCAGCAGGACCTCCAGGCCGCGCTTCTTGGACTTCTGTGGCACAACATGAAGCTCCCT
GTGCCGGCGCGCCCCCACCCTGGGAAAACCCATAAAGGCGCACTGCCCCTAGCCGGTCCGGCCTCTCTCCAGT
CCATCCTGAACCCCTGGAAAACCCATAAAGGCGCTCTCCTGGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4385

MAETAAGVGRFKTNYAVERKIEPFYKGGKAQLDQTGQHLCVCGTRVNILEVASGAVLRSLEQEDQEDITAFDLS
PDNEVLVTASRALLLAQWAWQEGSVTRLWKAIHTAPVATMAFDPTSTLLATGGCDGAVRVWDIVRHYGTHHFRGS
PGVVHLVAFHPDPTRLLLFSSATDAAIRVWSLQDRSCLAVLTAHYSAVTSLAFSADGHTMLSSGRDKICIIWDLQ
SCQATRTVPVFESVEAAVLLPEEPVSQLGVKSPGLYFLTAGDQGTLRVWEAASGQCVYTQAQPPGPGQELTHCTL
AHTAGVVLTAADHNLLLYEARSRLQKQFAGYSEEVL DVRF LGPEDSHVVVASNSPCLKVFELQTSACQILHGH
TDIVLALDVFRKGWLFASCAKDQSVRIWRMNKAGQVMCVAQGSNGTHSVGTVCCSRLKESFLVTGSQDCTVKLWP
LPKALLSKNTAPDNGPILLQAQTTQRCHDKDINSVAIAPNDKLLATGSQDRTAKLWALPQCQLLGVSFSGHRRGLW
CVQFSPMDQVLATASADGTIKLWALQDFSLKTFEGHDASVLKVAFVSRGTQLLSSGSDGLVKLWTIKNNECVRT
LDAHEDKVWGLHCSRLDDHALTGASDSRVILWKDVTEAEQAEQARQEEQVVRQQEELDNLLHEKRYLRALGLAIS
LDRPHTVLTVIQAIRRDPEACEKLEATMLRLRRDQKEALLRFVCTWNTNSRHCHEAQAVLGVLLRREAPEELLAY
EGVRAALEALLPYTERHFQRLSRTLQAAFLDFLWHNMKLPVPAAPTPWETHKGALP

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FIGURE 4386

GGCACGAGGCAAGAGCAAAGGGGCCAGCACCCCCGCTGCCTCCACGCTGCCACCGCCAACGGGGCCCGACCGGC
GCGCTCCGGGACTGCGCTTTCCGGCCCCGACGCGCCGCCAACGGGCCTTGCAGCCCGGCCGGCCCTCGCTTGGC
GGCGGTGTCGACTTCTACGACGTCGCCTTCAAGGTCATGCTGGTGGGGGACTCGGGTGTGGGGAAGACCTGTCTG
CTGGTGCATTCAAGGATGGTGTCTTCTGGCGGGGACCTTCATCTCCACCGTAGGCATTGACTTCCGGAACAAA
GTTCTGGACGTGGATGGTGTGAAGGTGAAGCTGCAGATGTGGGACACAGCTGGTCAGGAGCGGTTCCGCAGTGTT
ACCCATGCCTACTACCGGGATGCTCATGCTCTGCTGCTGCTCTACGATGTCAACCAACAAGGCCTCCTTTGACAAC
ATCCAGGCCTGGCTGACCGAGATCCACGAGTACGCCCAGCACGACGTGGCGCTCATGCTGCTGGGGAACAAGGTG
GACTCTGCCCATGAGCGTGTGGTGAAGAGGGAGGACGGGGAGAAGCTGGCCAAGGAGTATGGACTGCCCTTCATG
GAGACCAGCGCCAAGACGGGCCCTCAACGTGGACTTGGCCTTCACAGCCATAGCAAAGGAGTTGAAGCAGCGCTCC
ATGAAGGCTCCCAGCGAGCCGCGCTTCCGGCTGCATGATTACGTTAAGAGGGAGGGTCGAGGGGCCTCCTGCTGC
CGCCCTTGAACCTGGCTGAGCTCAGTCCTCTGGAGGAAGCCGCCAGTCCCTAGAAGGCTGGACAGAGGGTCTCC
AGGCCCTTCTGACTTTGTTGCCAGTGGCCAACGCCCGAGTGTCTGTTTTTTCAGGAGCCCCAGGTCAAGCCTTGTC
CCTTCCTCCTCCCAGCAACAGTCCCAACAAGCAGGCTTCTGAGAGCCCGTGGCCGCACACTGGCCGCCACGAAA
AGCAGTCTTCTGCACGGGACGGGGAGCGGCAAGTGGACAGACTTTGCCACGGTGCTCTGCTGCCCCCTCCTGGGC
ACGTCCAGGTGAGGGAGGGCTGGGGCTGGCACCACGCACAGTGCCTAACCCTAGAAAAGCCATGTCTTCAGCCGC
ACATGCTCAGGCAGCTAAGGGAGGACGCTGCCACGCCTGGGACAGAAGGCTTCACTGCTAATCACATCGTGCA
TCTGTGTCTCTGGGAGCTGCCTGCTCCCGCCCCACCCTCTAGGAGGCTCTGGCTCAAACAGCAATAGGGTCTTC
CTCACTGACCTTGGAGGATGCCTGTGGCCTTGTGATAAAATGTGGGAAATCACAGAAAACACCAGAAACAACAAC
TGCCAGCCCCGGCCTGGCCACAGGTGAGGTCTGTGATTTCCGAGCACGCTCCACCTTGCACTCAACTTGGCCTTTT
GATTGCACAAGCCTTTGTTTTTCACTCCTAGTGAATAAAGTTGTGTTTTCTGGAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 4387

MLVGDSGVGKTCLLVRFKDGAFAGTFISTVGIDFRNKVLDVDGVKVKLQMWDTAGQERFRSVTHAYYRDAHALL
LLYDVTNKASFDNIQAWLTEIHEYAQHDVALMLLGKVKVDSHERVVKREDGEKLAKEYGLPFMETS AKTGLNVDL
AFTAI AKELKQRSMKAPSEPRFLHDYVKREGRGASCCRP

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FIGURE 4388

GGGCGGGAGGTGCTTCCCAAGGACCGTAGATGCCTCTCTAGAGCATGAGCTCAGGCAAGAGTGCCCGCTACAACC
GCTTCTCCGGGGGGCCAGCAATCTTCCCACCCAGACGTCACCACAGGGACCAGAATGGAAACGACCTTCGGAC
CCGCCTTTTAGCCGTACCAACCATCACAAAAGCTGACGGGACCAGCACCTACAAGCAGCACTGCAGGACAGCAT
GCCCCCATCAGCACTCCCCGCCGTCCGACTCCGCCATCTCTGTCCGCTCCCTGCACTCAGAGTCCAGCATGTC
TCTGCGCTCCACATTCTCACTGCCCCGAGGAGGAGGAGGCCGGAGCCACTGGTGTGTTGCGGAGCAGCCCTCGGT
GAAGCTGTGCTGTGAGCTCTGCTGCAGCGTCTTCAAAGACCCCGTGATCACCACGTGTGGGCACACGTTCTGTAG
GAGATGCGCCTTGAAGTCAGAGAAGTGTCCCGTGGACAACGTCAAACCTGACCGTGGTGGTGAACAACATCGCGGT
GGCCGAGCAGATCGGGGAGCTCTTCATCCACTGCCGGCAGCGGTGCCGGGTAGCGGGCAGCGGGAAGCCCCCAT
CTTTGAGGTGGACCCCCGAGGGTGCCCTTCACCATCAAGCTCAGCGCCCGGAAGGACCACGAGGGCAGCTGTGA
CTACAGGCCCTGTGCGGTGTCCCAACAACCCAGCTGCCCCCGCTGCTCAGGATGAACCTGGAGGCCACCTCAA
GGAGTGCAGACACATCAAATGCCCCACTCCAAGTACGGGTGCACGTTTCATCGGGAACCAGGACACTTACGAGAC
CCACCTGGAGACTTGCCGCTTCGAGGGCCTGAAGGAGTTTCTGCAGCAGACGGATGACCGCTTCCACGAGATGCA
CGTGGCTCTGGCCAGAAGGACCAGGAGATCGCCTTCTGCGCTCCATGCTGGGAAAGCTCTCGGAGAAGATCGA
CCAGCTAGAGAAGAGCTGGAGCTCAAGTTTGACGTCTGGACGAAAACCAGAGCAAGCTCAGCGAGGACCTCAT
GGAGTTCGGCGGGACGCATCCATGTTAAATGACGAGCTGTCCACATCAACGCGCGGTGAACATGGGCATCCT
AGGCTCCTACGACCTCAGCAGATCTTCAAGTGCAAAGGGACCTTTGTGGGCCACCAGGGCCCTGTGTGGTGTCT
CTGCGTCTACTCCATGGGTGACCTGCTCTTCAGTGGCTCCTCTGACAAGACCATCAAGGTGTGGGACACATGTAC
CACCTACAAGTGTGAGAAGACACTGGAGGGCCATGATGGCATCGTGTGCTGCTCTCTGCATCCAGGGGTGAAACT
CTACAGCGGCTCTGCAGACTGCACCATCATTGTGTGGGACATCCAGAACCTGCAGAAGGTGAACACCATCCGGGC
CCATGACAACCCGGTGTGCACGCTGGTCTCCTCACACAACGTGCTCTTCAGCGGCTCCCTGAAGGCCATCAAGGT
CTGGGACATCGTGGGCACTGAGCTGAAGTTGAAGAAGGAGCTCACAGGCCTCAACCACTGGGTGCGGGCCCTGGT
GGCTGCCCAGAGCTACCTGTACAGCGGCTCCTACCAGACAATCAAGATCTGGGACATCCGAACCTTGACTGCAT
CCACGTCTGACAGACGTCTGGTGGCAGCGTCTACTCCATTGCTGTGACAAATCACCACATTGTCTGTGGCACCTA
CGAGAACCTCATCCACGTGTGGGACATTGAGTCCAAGGAGCAGGTGCGGACCCTCACGGGCCACGTGGGCACCGT
GTATGCCCTGGCGGTCTCTCGACGCCAGACCAGACCAAAGTCTTCAGTGCATCCTACGACCGGTCCCTCAGGGT
CTGGAGTATGGACAACATGATCTGCACGCAGACCCTGCTGCGTCACCAGGGCAGTGTACCGCGCTGGCTGTGTC
CCGGGGCCGACTCTTCTCAGGGGCTGTGGATAGCACTGTGAAGGTTTGGACTTGCTAACAGGATCCAGGCCAGGC
TGTGGTTTTCCCTGAACCAGCCCTGGACCTTTCTGAGCCAGGCTGGCCACATGGGGTGGTCTCGGGGTTTTCTGCC
TGCCCCGTGGGCATAGGTGGACAGGCTCTGGCAGCCGGGCAGTGCCCTCCCCGTCCCATGCTCGGCGAGCCTCCC
TCTACTCGGCACTGTCTTGTGCCCAGCCCCCTCTCTGGGTGCCAGGTACGACGCTTGCCCCGGCCCCACCCTCCA
TCCCCACCCTCCATCCCCACCCTAGATGGAGCGAGGGCCTTTTTTACTCACCTTTTCTACCGTTTTTAGACTGTAT
GTAGATTTGGTTACCTCCTGGTTGAAATAAATGCTCCACAGACTGTGGCTGTGAGTGGGGACAGCTCCTCGGGAC
AAGGGGGCTGTGTGTGGCCTTGAGGTTGGTGTGCACAGGCACTGGCTGCTGTGAGTGGGGGGGCATGGGGCAGTT
TCCTTTGGTGGACCCAGGACTTCGGCCCACTCCGGGGCCTCCCTCCCTGCTAGGAGGCAACTCGTCACACCCA
AGCTGCTGGCCTCCAGTCCCATCTCCCCAACACATGTGCCCCAAAAGTGAGCCAGGCACCTCTGTTTCCCTGC
TGTTTTATTGACAGCCGACGGCAGCGCCTTGCCCAGACCTCCCTGCCACCTGCTGGAGCCCAGCCTGTGCCGCC
CTCTGAGGAGAGGCCTGGGGGGACAGCTGGGCACGTCCACTCGCAGGGAAACACGGGGTGAGACAGCAGGAAGGG
GCCCTGCACGCCGGGACGCCACCTCCGCCAGCCGCCTCCACCCGCCCCACACCACAATCGCTGGTTTTCGGCATT
TTTTAAATTTTTTTTTTAAGAAACGTCAAAGTTGTGCCAACACTGTGGATCAGCAACACGATAGAGGAGACCA
GTCAGTACTTCTTGAGGGGGGCAGGAGGAGAGAGGAAAAGGGAGGGCGAGAATGACCACACAACACAGCCTTGGA
CCATGAGCAGAAGCGTCCGTGGGAACCTCACTGGGGTGGATGGGCTGCCTGCACAGCCCCCTGGAGAGGGGGCCAG
GCACACCTCAGAGGAGCTGCAAGCCCGTGGCCTGGCCTGCTACATGCCCTGCTTCCACGTGGCTGCCACGCTGA
CACACCCACATTACCAAACCCACCCGCGCCCTGGGACGCAGCCACGCCAGGAGGAGGACACGGCCCGGAGAGC
AAGGCACAACCTCGAGTTCTTGGGGCGCAGAGAACTTAGGAGAGAAGCACGGAGGAGCCCCCGGCAGAGCACCCG
CCCCGGGGCCCCAGCCTTCCACCTGTGCTAGCAGCCTGGGGCCTCCACTCTGGCCGGAGGAAGGACCGCAGGCAG
ACAGCCTGGGCCTCTAACAGCTTTTGTCCGGAGCTAGACTTCGTGTCTTTTCAAGTTGGTAAATGGTTTTCTATAG
AATCAATAATATTTCTTTCTTTAAATATATATTTGTTAAAGTTATACCTTTTTGTTTCTCTGGGGAAATCCGCCT
CAGCTCATTCCCAATAAATAAATACTCTTGATAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4389

MPPISTPRRSDSAISVRSLHSESSMSLRSTFSLPEEEEEPEPLVFAEQPSVKLCCQLCCSVFKDPVITTCGHTFC
RRCALKSEKCPVDNVKLTVVVNNIAVAEQIGELFIHCRHGCRVAGSGKPPIFEVDPRGCPFTIKLSARKDHEGSC
DYRPVRCNNPSCPPLLRLMNLEAHLKECEHIKCPHSGYCTFIGNQDTYETHLETCTCFEGLKEFLQQTDDRFHEM
HVALAQKDQEI AFLRSLGKLSEKIDQLEKSLELKFVDLDENQSKLSEDLMEFRRDASMLNDELSHINARLNMGI
LGSYDPQQIFKCKGTFVGHQGPVWCLCVYSMDLLFSGSSDKTIKVWDTCTTYKCQKTLEGHGDI VLALCIQGCK
LYSGSADCTII VWDIQNLQKVNTIRAHDPVCTLVSSHNVLFSGSLKAIKVWDIVGTELKLKKELTGLNHWVRAL
VAAQSYLYSGSYQTIKIWDIRTLDCIHVLQTSGGSVYSIAVTNHHIVCGTYENLIHVWDIESKEQVRTLTGHVGT
VYALAVISTPDQTKVFSASYDRSLRVWSMDNMICTQTLLRHQGSVTALAVSRGRLFSGAVDSTVKVWTC

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FIGURE 4390

AGCCCGCGACCTTTATCCCGCGCGTTGCGGTCAAGATGGCGCTGGTGGCTTCTGTTGCGAGTCCGGCGCGCGTTC
TGCTCCGCGCGGGGGGCGCGGCTCCCGGGCGCGGCCCTCGGGCGGACGGAGCGGGCGGCCGGCGGAGACGGCG
CGCGGCGCTTCGGGAGCCAGCGGGTGCTGGTGGAGCCGGACGCGGGCGCAGGGGTGCTGTGATGAAATTCAAGA
ACCCCCAGTGAACAGCCTGAGCCTGGAGTTTCTGACGGAGCTGGTCATCAGCCTGGAGAAGCTGGAGAATGACA
AGAGCTTCCGCGGTGTCAATTCTGACCTCGGACCGCCCGGGTGTCTTCTCGGCCGGCCTGGACCTGACGGAGATGT
GTGGGAGGAGCCCCGCCACTACGCTGGGTACTGGAAGGCCGTTTCAAGAGCTGTGGCTGCGGTTGTACCAGTCCA
ACCTGGTGCTGGTCTCCGCCATCAACGGAGCCTGCCCCGCTGGAGGCTGCCTGGTGGCCCTGACCTGTGACTACC
GCATCCTGGCGGACAACCCAGGTACTGCATAGGACTCAATGAGACCCAGCTGGGCATCATCGCCCCTTTCTGGT
TGAAAGACACCCTGGAGAACACCATCGGGCACC GGCGGCGGAGCGTGCCCTGCAGCTGGGGCTGCTCTTCCCGC
CGGCGGAGGCCCTGCAGGTGGGCATAGTGGACCAGGTGGTCCCGGAGGAGCAGGTGCAGAGCACTGCGCTGTCAG
CGATAGCCCAGTGGATGGCCATTCCAGACCATGCTCGACAGCTGACCAAGGCCATGATGCGAAAGGCCACGGCCA
GCCGCTGGTCACGCAGCGCGATGCGGACGTGCAGAACTTCGTGAGCTTCATCTCAAAGACTCCATCCAGAAGT
CCCTGCAGATGTACTTAGAGAGGCTCAAAGAAGAAAAAGGCTAACGATTGGGCTGCCACAGGCTTACGGCCACAC
GTGCCCCGTGTGGGTCCCAGGGAGGTCTTAAACAAGGTATTTTCAACTT

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FIGURE 4391

MALVASVRVPARVLLRAGARLPGAALGRTERAAGGGDGARRFGSQRVLVEPDAGAGVAVMKFKNPPVNSLSLEFL
TELVISLEKLENDKSFRGVILTSDRPGVFSAGLDLTEMCGRSPAHYAGYWKAVQELWLRLYQSNLVLVSAINGAC
PAGGCLVALTCDYRILADNPRYCIGLNETQLGIIAPFWLKDLENTIGHRAAERALQLGLLFPPAEALQVGIVDQ
VVPEEQVQSTALSAIAQWMAIPDHARQLTKAMMRKATASRLVTQRDADVQNEVVSFISKDSIQKSLQMYLERLKEE
KG

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FIGURE 4392

GGCCCCGCGGGACTCAGACCAGCGGGGAGCGCGGCCTCCGCCCTTGGGGCCCTCCCGCCGGGCGGAGACCCAAGC
CCCCAACGCCAGGCCCTGCCCTGGAAGCGCTCGCGGCCCGGCGCCTGGACGGGGGAGTTGCTGCTCTTTGGCGTA
AATTGCAATCGATTAGGGATCGTTTCTCAGAATCAAGTTAGAAGTGAGAGTTCAGATAAGTGAGGCCGCCATTGC
TGCTTTGAACACCTCAGAAGGGGAGAAATCGATTATCAGGAGTGAAAAAGAAGAGCTTGCTAGGAGTCAAAGAAA
ATAATAAAAAGTCCAGCACTAGGGCTCCTTCACCTACCAAACGCAAAGACCGCTCAGATGAGAAGTCCAAGGATC
GCTCAAAAGATAAAGGGGCCACCAAGGAGTCGAGTGAGAAGGATCGCGGCCGGGACAAAACCCGAAAGAGGCGCA
GCGCTTCCAGTGGTAGCAGCAGTACCAGGTCTCGGTCCAGCTCGACTTCCAGCTCAGGCTCCAGCACCAGCACTG
GCTCAAGCAGTGGCTCCAGCTCTTCCTCAGCATCCAGCCGCTCAGGAAGCTCCAGCACCTCCCGCAGCTCCAGCT
CTAGCAGCTCTTCTGGCTCTCCAAGTCCTTCTCGGCGCAGACACGACAACAGGAGGCGCTCCCGCTCCAAATCCA
AACCACCTAAAAGAGATGAAAAGGAGAGGAAAAGGCGGAGCCATCTCCTAAGCCCACCAAAGTGACATTGGGA
GACTCACCCGGAATGTGACAAAGGATCACATCATGGAGATATTTTCCACCTATGGGAAAATTAAATGATTGACA
TGCCCGTGGAAGGATGCATCCCCATCTGTCCAAAGGCTATGCGTACGTAGAGTTTGAGAATCCAGATGAAGCCG
AGAAGGCGCTGAAGCACATGGATGGAGGACAAATTGATGGCCAGGAGATCACTGCCACCGCCGTGCTGGCCCCCT
GGCCTAGGCCACCCCCCAGGAGATTCAGCCCTCCCAGGAGAATGTTGCCACCACCGCCTATGTGGCGCAGGTCTC
CCCCACGGATGAGGAGAAGGTCCCGCTCCCCGAGGCGCAGGTCCCCCGTGCGCCGGAGATCACGGTCCCCGGGCC
GCGGCCGCCACAGGAGCCGCTCCAGCTCCAACCTCTCCCGATTAACAGGCCACTGAAGCTCTCGCCCCGTGTAAC
TATACCCACCCAGCTCAGTTTTGTCACTTTTCTAGCCAAAGGAAGACCAGTAGGAAAGCAAACCTTGACTCTG
GCAGGATTTGCAGGCAGCAGGCAGCACCCCTCTGCCAGCCGGGCCCGGCTGCAGAAGTGCTGTTGGTTTGGATG
CTGTGTGCCTGTCAAGATTCCCTCCGGTTTTCTGGCTAGAAAGCTCATCCGTTTCCGGTTTCTAAGAGTCAGTTC
AGTGGCAGAGCCACCAGGGAAGTGAAGGCTCTTGGGGGTGGTTTGACCCCTGCTTACCTGGGAGCACACTTTTCC
CTTCCCCGATGACCTGGGATGGTGGCCAGGCCGTGCCCTTGCTGTTGCTGGGCAGTGTCTTTTGGAAAGGGAGC
TGCCCCAGGCTTTAGTGAGCTGCCAACCTGTTAGGCCTGGCCTCTCGAGGCCTCTTCTGACCTCAAGGGTCAC
ACCCCTCAAAGATCCTCTCACCCATGGTAGTTGCTGCTCGTGGTTCTGTCTGTCCGTGCACCGATGCACACACC
GCACCCACCACTGTACTCTGAAATTGGCGAGTGAGTGGAGAGCCAGCTCTGCGGAGTCATCACGCAGCCATGGT
TGTGCCTGCCGTTTATGGTGGTCTTTTCTAGTTATCTTGGCAACATGTACATTGCTTTTATTTTTTTTCTTTTTG
CTTTCATTGTACAGTCAGTACTATAAAATTTCTTTTTGAGTTTTATACCTTTGTAGCATTTTAGATGACATTGT
GTTTGTACTTTGTTGTGTAGAGTGGAAGAATTGTGTTGAATAAACCCAAGATCGGAATGCAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 4393

MDLSGVKKKSLGKVENNKKSTRAPSPTRKDRSDEKSKDRSKDKGATKESSEKDRGRDKTRKRRSASSGSSST
RSRSSSTSSSGSSTSTGSSSGSSSSASSRSGSSSTSRSSSSSSSSGSPSPSRRRHDNRRRSRSKSKPPKRDEKE
RKRRSPSPKPTKVHIGRLTRNVTKDHIMEIFSTYGIKIDMPVERMHPLSKGYAYVEFENPDEAEKALKHMDG
GQIDGQEITATAVLAPWPRPPRRFSPPRRMLPPPPMWRRSPPRMRRRSRSPRRRSPVRRRSRSPGRRRHRSRSS
SNSSR

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FIGURE 4394

GAGCGGCGCCGGCCTCGGCGGCTGAGGAAAGCAGGAGGAGGTGGCGGCGGCGGGAAGATGCTGCTCTTTGGCGTA
AATTGCAATCGATTAGGGATCGTTTCTCAGAATCAAGTTAGAAGTGAGAGTTGAGATAAGTGAGGCCGCCATTGC
TGCTTTGAACACCTCAGAAGGGGAGAAATGCGATTATCAGGAGTGAAAAAGAAGAGCTTGCTAGGAGTCAAAGAAA
ATAATAAAAAGTCCAGCACTAGGGCTCCTTCACCTACCAAACGCAAAGACCGCTCAGATGAGAAGTCCAAGGATC
GCTCAAAAGATAAAGGGGGCCACCAAGGAGTCGAGTGAGAAGGATCGCGGCGGGACAAAACCCGAAAGAGGCGCA
GCGCTTCCAGTGGTAGCAGCAGTACCAGGTCTCGGTCCAGCTCGACTTCCAGCTCAGGCTCCAGCACCCAGCACTG
GCTCAAGCAGTGGCTCCAGCTCTTCCTCAGCATCCAGCCGCTCAGGAAGCTCCAGCACCTCCCGCAGCTCCAGCT
CTAGCAGCTCTTCTGGCTCTCCAAGTCCTTCTCGGCGCAGACACGACAACAGGAGGCGCTCCCGCTCCAATCCA
AACCACCTAAAAGAGATGAAAAGGAGAGGAAAAGGCGGAGCCCATCTCCTAAGCCCAACAAAGTGACATTGGGA
GACTCACCCGGAATGTGACAAAGGATCACATCATGGAGATATTTTCCACCTATGGGAAAATTAAAATGATTGACA
TGCCCGTGGAAGGATGCATCCCCATCTGTCCAAAGGCTATGCGTACGTAGAGTTTGAGAATCCAGATGAAGCCG
AGAAGGCGCTGAAGCACATGGATGGAGGACAAATTGATGGCCAGGAGATCACTGCCACCGCCGTGCTGGCCCCCT
GGCCTAGGCCACCCCCCAGGAGATTGAGCCCTCCCAGGAGAATGTTGCCACCACCGCCTATGTGGCGCAGGTCTC
CCCCACGGATGAGGAGAAGGTCCCGCTCCCCGAGGCGCAGGTCCCCCGTGCGCCGGAGATCAGGTCCCCGGGCC
GCCGCCGCCACAGGAGCCGCTCCAGCTCCAACCTCTCCCGATTAACAGGCCACTGAAGCTCTCGCCCCCTGTAACCT
TATACCCCAACCAGCTCAGTTTTGTCACTTTTCTAGCCAAAGGAAGACCAGTAGGAAAGCAAACCCCTTGACTCTG
GCAGGATTTGCAGGCAGCAGGCAGCACCCCTCTGCCAGCCGGGCCCCGGCTGCAGAAGTGCTGTTGGTTTGATG
CTGTGTGCTGTCAAGATTCCCTCCGGTTTTCTGGCTAGAAAGCTCATCCGTTTTCCGGTTTTCTAAGAGTCAGTTC
AGTGGCAGAGCCACCAGGGAAGAGTGAGGCTCTTGGGGGTGGTTTTGACCCTGCTTACCTGGGAGCACACTTTTCC
CTTCCCCGATGACCTGGGATGGTGGCCAGGCCGTGCCCTTGCTGTTGCTGGGCAGTGTCTTTTTGGAAGGGAGC
TGCCCCAGGCTTTAGTGAGCTGCCAACCTGTTAGGCCTGGCCTCTCGAGGCCTCTTCTGACCTCAAGGGTCAC
ACCCCTCAAAGATCCTCTCACCCATGGTAGTTGCTGCTCGTGTTCTGTCTGTCCGTGCACCGATGCACACACC
GCACCCCACTGTACTCTGAAATTGGCGAGTGAGTGAGAGCCAGCTCTGCGGAGTCATCACGCAGCCATGGT
TGTGCTGCGGTTTATGGTGGTCTTTCAGGTTATCTTGGCAACATGTACATTGCTTTTTTTTTTTCTTTTTTG
CTTTCATTGTACAGTCAGTACTATAAAATTTCTTTTTGAGTTTTATACCTTTGTAGCATTTTAGATGACATTGT
GTTTGTACTTTGTTGTGTAGAGTGGAAGAATTGTGTTGAATAAACCAAGATCGGAATGCAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 4395

MDLSGVKKKSL LGVKEN NKSS TRAPSP TKRKDRSDEKSKDRSKDKGATKESSEKDRGRDKTRKRRSASSGSSST
RSRSSSTSSSGSSTSTGSSSGSSSSSASSRSGSSSTSRSSSSSSSSGSPSPSRRRHDNRRRSRSKSKPPKRDEKE
RKRRSPSPKPTKVHIGRLTRNVTKDHIMEIFSTYGKIKMIDMPVERMHPHLSKGYAYVEFENPDEAEKALKHMDG
GQIDGQEITATAVLAPWPRPPRRFSPPRMLPPPPMWRRSPPRMRRRSRSPRRRSPVRRRSRSPGRRRHRSRSS
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FIGURE 4396

GCGAGGTTCTGCGCGGGCGCGGAAGACGGGCGGCGCTGGCGGAAGGGTTCTGGGACGGTACGCACCAGCCACCTT
CGCGCCGAAGGCGGTAGGGCGCCACGGAGAGGAACCGCTCTAGGCACGTAAGGCCTCGTGAGGTTGCGTCGCGCG
CGGAGCACTCTGGGACTTGTAGTTCTGGAGATGGAGCGAGCTGTGCCGCTCGCGGTGCCTCTGGGTCAGAGGTGT
TCCAGGCCTTGCGAGCGGCTCCATATGACCATCTTCTCCCAGAGCGTCTCACCATGTGGGAAGTTTCTGGCGGCTG
GCAACAATTACGGGCAGATTGCCATCTTCAGCTTGTCTCTGCTTTGAGCTCAGAAGCCAAAGAGGAAAGTAAGA
AGCCGGTGGTGACTTTCCAAGCCCATGATGGGCCCGTCTATAGCATGGTTTCCACCGATCGACATCTGCTTAGTG
CTGGGGATGGGGAGGTGAAGGCCTGGCTTTGGGCGGAGATGCTCAAGAAGGGCTGTAAGGAGCTGTGGCGTCGTC
AGCCTCCATACAGGACCAGCCTGGAAGTGCCTGAGATCAACGCTTTGCTGCTGGTCCCCAAGGAGAATTCCCTCA
TCCTGGCTGGGGGAGACTGTCAGTTGCACACTATGGACCTTGAAACTGGGACTTTACGAGGGTCTCCGGGGCC
ACACAGACTACATCCACTGCCTGGCACTGCGGGAAAGGAGCCAGAGGTGCTGTCAGGTGGCGAGGATGGAGCTG
TTCGACTTTGGGACCTGCGCACAGCCAAGGAGGTCCAGACGATCGAGGTCTATAAGCACGAGGAGTGTCTGAGGC
CCCACAATGGGCGCTGGATTGGATGTTTGGCAACTGATTCCGACTGGATGGTCTGTGGAGGGGGCCAGCCCTCA
CCCTCTGGCACCTCCGATCCTCCACACCCACCACCATCTTCCCCATCCGGGCGCCACAGAAGCACGTCACCTTCT
ACCAGGACCTGATTCTGTCTAGCTGGCCAGGGCCGCTGCGTCAACCAGTGGCAGCTGAGCGGGGAGCTGAAGGCCC
AGGTGCCTGGCTCCTCCCCAGGGCTGCTCAGCCTCAGCCTCAACCAGCAGCCTGCCGCGCCTGAGTGAAGGTCC
TGACAGCTGCAGGCAACAGCTGCCGGGTGGATGTCTTACCAACCTGGGTTACCGAGCCTTCTCCCTGTCCTTCT
GATCTCTGACGACACCCCCAGCCAGCTCAGGGTTTTAGAGTGTTCATTTTCTTTTTTTTTTTTACAATAA
AGTTTCAGGCTTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4397

MTIFSQSVSPCGKFLAAGNNYGQIAIFSLSSALSSEAKEESKKPVVTFQAHDGPVYSMVSTDRHLLSAGDGEVKA
WLWAEMLKKGCKELWRRQPPYRTSLEVPEINALLVPKENSILLAGGDCQLHTMDLETGTFTRVLRGHTDYIHCL
ALRERSPEVLSGGEDGAVRLWDLRTAKEVQTIEVYKHEECRPHNGRWIGCLATDSDWMVCGGGPALTTLWHLRSS
TPTTIFPIRAPQKHVTFYQDLILSAGQGRCVNQWQLSGELKAQVPGSSPGLLSLSLNQQPAAPECKVLTAAGNSC
RVDVFTNLGYRAFSLSF

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FIGURE 4398

GCGGCGGGCGCAGACAGCGGCGGGCGCAGGACGTGCACTATGGCTCGGGGCTCGCTGCGCCGGTTGCTGCGGCTC
CTCGTGCTGGGGCTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGGAGCAAGCGCCAGGCACCGCCCCCTGCTCC
CGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGAGGGCGCGACCGCACAGCGAC
TTCTGCCTGGGCTGCGCTGCAGCACCTCCTGCCCCCTTCCGGCTGCTTTGGCCCATCCTTGGGGGCGCTCTGAGC
CTGACCTTCGTGCTGGGGCTGCTTTCTGGCTTTTGGTCTGGAGACGATGCCGCAGGAGAGAGAAGTTCACCACC
CCCATAGAGGAGACCGGCGGAGAGGGCTGCCAGCTGTGGCGCTGATCCAGTGACAATGTGCCCCCTGCCAGCCG
GGGCTCGCCCACTCATCATTTCATTCATTCATTCTAGAGCCAGTCTCTGCCTCCCAGACGCGGCGGGAGCCAAGCT
CCTCCAACCACAAGGGGGGTGGGGGGCGGTGAATCACCTCTGAGGCCCTGGGCCCAGGGTTCAGGGGAACCTTCCA
AGGTGTCTGTTGCCCTGCCTCTGGCTCCAGAACAGAAAGGGAGCCTCACGCTGGCTCACACAAAACAGCTGACA
CTGACTAAGGAACTGCAGCATTTGCACAGGGGAGGGGGGTGCCCTCCTTCCTTAGGACCTGGGGGCCAGGCTGAC
TTGGGGGGCAGACTTGACACTAGGCCCCACTCACTCAGATGTCCTGAAATTCCACCACGGGGGTACCCCTGGGGG
GTTAGGGACCTATTTTTTAACACTAGGGGCTGGCCCCACTAGGAGGGCTGGCCCTAAGATACAGACCCCCCACTC
CCCAAAGCGGGGAGGAGATATTTATTTTGGGGAGAGTTTGGAGGGGAGGGAGAATTTATTAATAAAAGAATCTTT
AACTTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4399

MARGSLRRLRLRLVLGLWLALLRSVAGEQAPGTAPCSRGSSWSADLDKMDCASCRARPHSDFCLGCAAAPPAPF
RLLWPILGGALSITFVLGLLSGFLVWRRRCRRREKFTTPIEETGGEGCPAVALIQ

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FIGURE 4400

GGCACGAGGATCTCCTTCGCAGTGCAGCTCCTTCAACCTCGCCATGGCCTCTGCCGGAATGCAGATCCTGGGAGT
CGTCCTGACACTGCTGGGCTGGGTGAATGGCCTGGTCTCCTGTGCCCTGCCCATGTGGAAGGTGACCGCTTTCAT
CGGCAACAGCATCGTGGTGGCCAGGTGGTGTGGGAGGGCTGTGGATGTCTGCGTGGTGCAGAGCACCGGCCA
GATGCAGTGCAAGGTGTACGACTCACTGCTGGCGCTGCCACAGGACCTGCAGGCTGCACGTGCCCTCTGTGTCAT
CGCCCTCCTTGTGGCCCTGTTTCGGCTTGCTGGTCTACCTTGCTGGGGCCAAGTGTACCACCTGTGTGGAGGAGAA
GGATTCCAAGGCCCGCCTGGTGTCTACCTCTGGGATTGTCTTTGTCACTCTCAGGGGTCTGACGCTAATCCCCGT
GTGCTGGACGGCGCATGCCGTCTCCGGGACTTCTATAACCCCTGGTGGCTGAGGCCCAAAAGCGGGAGCTGGG
GGCCTCCCTCTACTTGGGCTGGGCGGCCTCAGGCCTTTTGTGTGGGTGGGGGTTGCTGTGCTGCACCTTGCCC
CTCGGGGGGGTCCAGGGCCCCAGCCATTACATGGCCCGCTACTCAACATCTGCCCTGCCATCTCTCGGGGGCC
CTCTGAGTACCCTACCAAGAATTACGTCTGACGTTGGAGGGGAATGGGGGCTCCGCTGGCGCTAGAGCCATCCAGA
AGTGGCAGTGCCCAACAGCTTTGGGATGGGTTCGTACCTTTTGTTCCTGCTCTGCTATTTTTCTTTGACTGA
GGATATTTAAAATTTCATTTGAAAAGTGAAGCAAGGTGTTGACTCAGACTCTCACTTAGGCTCTGCTGTTTCTCAC
CCTTGGATGATGGAGCCAAAGAGGGGATGCTTTGAGATTCTGGATCTTGACATGCCCATCTTAGAAGCCAGTCAA
GCTATGGAACATAATGCGGAGGCTGCTTGCTGTGCTGGCTTTGCAACAAGACAGACTGTCCCCAAGAGTTCCTGCT
GCTGCTGGGGGCTGGGCTTCCCTAGATGTCACTGGACAGCTGCCCCCATCTACTCAGGTCTCTGGAGCTCCTC
TCTTACCCCTGGAAAAACAAATGATCTGTTAACAAAGGACTGCCACCTCCGGAATTCTGACCTCTGTTTCTCT
CCGTCCTGATAAGACGTCCACCCCCAGGGCCAGGTCCCAGCTATGTAGACCCCGCCCCCAGCTCCAACACTGC
ACCCTTCTGCCCTGCCCCCTCGTCTCACCCCTTTACACTCACATTTTATCAAATAAAGCATGTTTGTAGT
GCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4401

MASAGMQILGVVLTLLGWVNGLVSCALPMWKVTAFIGNSIVVAQVVWEGLWMSCVVQSTGQMCKVYDSLLALPQ
DLQAARALCVIALLLVALFGLLVYLAGAKCTTCVEEKDSKARLVLTSGIVFVISGVLTLLIPVCWTAHAVIRDFYNP
LVAEAQKRELGASLYLGWAASGLLLLGGGLLCCTCPSGGSQGPHYMARYSTSAPAI SRGPSEYPTKNYV

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FIGURE 4402

CAGGACTCCCGTGAGGGGGAACGGCCCGTGAAACGCGCGCGGAGCTGCTCGCGCCCCGCCAGTCGCCCCAGGGCT
TCCCCACACCCACGGAGTGAAGTCAGCCGCGGCCCTGCCTGGGAGGAACTTACCGTCTACCGGGAAGGTGGCCA
GCAGATGTGTCGGGCCCTGGTGAGAGGGTGAGGCGAGACGGCCCGATCGCCAGGGCCCCGGAAGCTGCGGAGGTG
ACCCCCGCTGGCCTTAGCTCAGGGACACCTGGATTACGTGGGAGCCCCCTGCTCCTGCCTCCCCCGTCCCACC
ACTGAAGCTGTTGGGCCAGGCCAGTCAAGCTAGAACGGCCTCCTGCACTGGCCATGCCCATGCCCACGGAGGGCA
CCCCGCCACCTCTGAGTGGCACCCCCATCCCAGTCCAGCCTACTTCCGCCACGCAGAACCTGGATTCTCCCTCA
AGAGGGCCAGGGGGCTCAGCCGGAGCCTCCACCTCCGCCCCCTGCCAAGGGCAGCATTCCCATCAGCCGCTCT
TCCCTCCTCGGACCCAGGCTGGCACCAAGCTGCGAGCCCCGGCGGGTGTATTCCGGGGCGAGGCCTCAGAGACTC
TGCAGAGCCCTGGGTATGACCCAAGCCGGCCAGAGTCTTCTTCCAGCAGAGCTTCCAGAGGCTCAGCCGCTGG
GCCATGGCTCCTACGGAGAGGTCTTCAAGGTGCGCTCCAAGGAGGACGGCCGGCTCTATGCGGTAAAGCGTTCCA
TGTACCAATTCCGGGGCCCCAAGGACCGGGCCCCGCAAGTTGGCCGAGGTGGGCAGCCACGAGAAGGTGGGGCAGC
ACCCATGCTGCGTGCGGCTGGAGCAGGCCTGGGAGGAGGGCGGCATCCTGTACCTGCAGACGGAGCTGTGCGGGC
CCAGCCTGCAGCAACACTGTGAAGCCTGGGGTGCCAGCCTGCCTGAGGCCCAGGTCTGGGGCTACCTGCGGGACA
CGCTGCTTGCCCTGGCCCATCTGCACAGCCAGGGCCTGGTGACCTTGATGTCAAGCCTGCCAACATCTTCTGG
GGCCCCGGGGCCGCTGCAAGCTGGGTGACTTCGGACTGCTGGTGGAGCTGGGTACAGCAGGAGCTGGTGAGGTCC
AGGAGGGAGACCCCGCTACATGGCCCCCGAGCTGCTGCAGGGCTCCTATGGGACAGCAGCGGATGTGTTAGTC
TGGGCCTCACCATCCTGGAAGTGGCATGCAACATGGAGCTGCCCCACGGTGGGGAGGGCTGGCAGCAGCTGCGCC
AGGGCTACCTGCCCCCTGAGTTCACTGCCGGTCTGTCTCCGAGCTGCGTTCTGTCCTGTGATGATGCTGGAGC
CAGACCCCAAGCTGCGGGCCACGGCCGAGGCCCTGCTGGCACTGCCTGTGTTGAGGCAGCCGCGGGCCTGGGGTG
TGCTGTGGTGCATGGCAGCGGAGGCCCTGAGCCGAGGGTGGGCCCTGTGGCAGGCCCTGCTTGCCCTGCTCTGCT
GGCTCTGGCATGGGCTGGCTCACCTGCCAGCTGGCTACAGCCCCTGGGCCCGCCAGCCACCCGCTGACTCAC
CACCTGCAGTTTGCTCCTGGACAGCAGCTTCTCCAGCAACTGGGATGACGACAGCCTAGGGCCTTCACTCTCCC
CTGAGGCTGTCTTGGCCCGACTGTGGGGAGCACCTCCACCCCCCGGAGCAGGTGCACACCCAGGGATGCCCTGG
ACCTAAGTGACATCAACTCAGAGCCTCCTCGGGGCTCCTTCCCCTCCTTTGAGCCTCGGAACCTCCTCAGCATGT
TTGAGGACACCCTAGACCAACCTGAGCCCCAGATTCTGCCTCTGCACTTTTAACCTTTTATCCTGTGTCTCTCC
CGTCGCCCTTGAAAGCTGGGGCCCCCTCGGGAACCTCCATGGTCTTCTCTGCCTGGCCGTGTCTAATAAAAAAGTAT
TTGAACCTTGAAAAAAGAG

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FIGURE 4403

MLERPPALAMPMPTEGTPPPLSGTPIPVPAIFRHAEPGFSLKRPRGLSRSLPPPPPAKGSIPISRLFPPTPGWH
QLQPRRVSFRGEASETLQSPGYDPSRPESFFQQSFQRLSRLGHGSYGEVFKVRSKEDGRLYAVKRSMSPFRGPKD
RARKLAEVGSHEKVGQHPCCVRLEQAWEEGGIYLQTELCGPSLQQHCEAWGASLPEAQVWGYLRDTLLALAH
SQGLVHLDVKPANIFLGPRGRCKLGDFGLLVELGTAGAGEVQEGDPRYMAPELLQGSYGTAADVSLGLTILEVA
CNMELPHGGEGWQQLRQGYLPPEFTAGLSSELRSVLVMMLEPDPKLRATAEALLALPVLQRPAWGVLCMAAEA
LSRGWALWQALLALLCWLWHGLAHPASWLQPLGPPATPPDSPPCSLLLDSSFSSNWDDDSLGPSSLPEAVLARTV
GSTSTPRSRCTPRDALDLSINSEPPRGSFPSFEPRNLLSMFEDTLDPT

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FIGURE 4404

GGCCACCGCCGCCGCCGCCGCCGCCGAGCTGTCCCTGCGGCGCGTCTGCCCTTGGCGGAGCCGACCGCAGTGCGCTC
AGGCGTCCGGTGCCTCCCCAGCCTCCGCCCCGGCGGGGGCGACGACTCGCGCGTGCGCAGCGCCGAGGGGC
GCGGGCTGGGACCCCTAGCCAGCGCGTGCGCCGATCGAGCGCAGGGCGATGGGTGGGCGCCGGGCGCCGGGCGC
CAGGCAGTGATGGGCCTTCCCGCGCTGCGGCCCCACTGAGGAGGAGGCTCGGGGACAGCAGGAGCACGGGCTGCC
CGCGCGGTGCGGACCATGGCGTTCCTGCCGGGCGCGCCTGTCTGGACTGGGCCAGCTCGCCGCGCGACCTGCAG
TTCAATAAGTTCTGTGCTGACCGGTACCGGCCCCGCCAGCAGCGGCTCGGGCTGCCGCGCAGCCTCTTCTACCTG
CACAACGAAGTGGGCAACATCTACACGCACGGGCTGGCCCTGTCTGGGCTTCCCTGGTGCTGGTGCCAATGACCATG
CCCTGGGGTTCAGCTGGGCAAGGATGGCTGGCTGGGAGGCACACATTGCGTGGCCTGCCCTTGACCCCCCTGCAGGC
TCCGTGCTCTATCACCTCTTTATGTGCCACCAAGGGGGCAGCGCTGTGTACGCCCGGCTCCTCGCCCTGGACATG
TGTGGGGTCTGCTTGTCAACACCTTGGGGCCCTGCCCATCATCCACTGCACCCTGGCCTGCAGGCCCTGGCTG
CGCCCCGGTGGCTGGTGGGCTACACTGTGTTGTGCGGGTGTGGCCGGCTGGCGTGTCTCTACCGCCCCCTCCACC
AGTGCTCGGCTCCGGGCATTTGGATGGCAGGCTGTCTGCCCGCTACTGGTATTTGGGGCCCGGGGAGTGGGTCTG
GGTTCAGGGGCTCCAGGCTCCCTGCCCTGCTACCTGCGCATGGACGCACTGGCGCTGCTTGGGGGACTGGTAAAT
GTAGCCCGTCTGCCCCGAGCGCTGGGGACCTGGCCGCTTTGACTACTGGGGCAACTCCACCAGATCATGCACCTG
CTGAGCGTGGGCTCCATCCTGCAGCTGCACGCCGGCGTGTGCCCCGACCTGCTCTGGGCTGCCACCACGCCTGT
CCCCGGGACTGAGCTGCCATGCCAGCCTGCCACAGCAGCCTCCTAGAGTTAGCAACACCAGGTGTTCTCCCAA
CTCGTCTGCAAGGGGCTGGCTCCTTGGATGCTTCCAGCTCATGAGATGTCTCAGCAGGAGCCCTGTTACCCGTT
CTTCCCTGTGGACTGACCTCTTCCACCCACGCCGTGGCGCTCCAACTTCTTCCCTGCCTTTTCCCTCCAAGCTC
CTATTTTACTGTGTGCTGAGCTGGAAGGAAACCTTTCCCTCTTGGGACCTCTTTACCCTCTGTGACCTGTGGGGTTAG
ACCAGAGAGGGACTCTGGGGTTCAGTCTTGTCTGAGAGTTCAAGTCTTCCAGGCCGCCAGCCAGAGCCTCCT
CACCTATCCTGTTCTCTCCACCAGGCTGTGGCCAGTCTTCTGATCTCCATCTTTCTGCCCTGCATACCAGCC
CTCCCAGCAGCCACAAGCTTGCCCGCCTGGCTCCCTCTGCCCAGAGACTATGGAGTAAGGCATTGAGGACAAAA
GGACCAAGGGGGCGTGGACCCGCTTGTACCAGCTGGCCACAGGCACAAGGGCTGCAGCTGCTTCTTCCAGGAAA
CTGACACAGGGAGCTCAGCGGCCTCAGATCCTGGGACCCCTGGGCGTGCCTGCCCTCCACCTTGAGTGCCATAC
TCCCAACAGCTCCAGGTACCCACCGGGGATGTGCTGCTCAGGAAACCTCTTTGCTCCACACAGCATGGGGCTT
CAGCTGCTGGCCCCAAGGCCAGGAGCGCTGGGTTCTGCAGCAGGGCTCAGCCTCAGGGGCGTTAAGACCCTGGATG
ACATCAATAAAGGGACAGGAAGGGCCATGTTGCCACATGAGCAAGCTTGGGTGCTCCCAAGGTTCAAATACTTTT
TATTAGACACGGCCAGGCAGAGAAGACCATGGGAGTTCCCGAGGGGCCCCAGCTTTCAAGGGCGACGGGAGAGAC
ACAGGATAAAAGGTTAAAAGTGCAGAGGCAGAGTCTGGGGCTCAGGTTGGGTCTAGGGTGTCTCAAACAGGCTG
AGGAGGTTCCGAGGCTCAAAGGAGGGGAAGGAGCCCCGAGGAGGCTCTGAGTTGATGTCACTTAGGTCCAGGGCA
TCCCTGGGAGGAGAGAGTAGTGACACTCAGGATCCAAAAGCTAGCCCTGCCACCCCAGCCCTGGACCTGCTTA
CCTGGGTGTGCACCTGCTCCGGGGGGTGGAGGTGCTCCCCACAGTCCGGGCCAGGACAGCCTCAGGGGAGAGTGA
AGGCCTGCAGGAGGGCAGGCGAGACAAGGAGGGTGTCCAGGGCTAGGGAGTGCCGGATGAAACCAGCTCTGTCCC
TGTGCAGGCTCCAGGCTCCCGCTGACAAACAGGCAGGGAGCCACAGTCAGGGACAATAAAAACTTGGTGCACCTC
TGAAAGCAGCACTTGGACAGCCTTCAAAGTCTTCCATCTGGCTGCACTCCAAGGCCCCCTCTGTCTTTTCAGA
ACACATGGACTTGGAGGCAGATTTGAAATAAACTTTTAGTAAATGT

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FIGURE 4405

MAFLAGPRLLDWASSPPHLQFNKFVLTGYRPASSGSGCLRSFYLHNELGNIYTHGLALLGFLVLVPMTMPWGQL
GKDGWLGGTHCVACLAPPAGSVLYHLEFMCHQGGSAVYARLLALDMCGVCLVNTLGALP I I HCTLACRPWLRPAAL
VGYTVLSGVAGWRALTAPSTSARLRAFGWQAAARLLVFGARGVGLGSGAPGSLPCYL RMDALALLGGLVNVARLP
ERWGPGRFDYWGNSHQIMHLLSVGSILQLHAGVVPDLLWAAHHACPRD

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FIGURE 4406

GGGAGACTGTCAGAGGACAACGCCCCCTAGGTCTCCTGGGAGACCCCGAAGCGACCCCGGGGGCAGCCCGGCGCG
TGTCGGGGCGAGGGTGACCTATCCTTGGTTGAGAGCGATGGGGACACAAGCCCTGCAGGGCTTCCTCTTTCTCCT
CTTCTCCCCGTGCTGCAGCCGCGTGGGGCCTCGGCTGGGAGCCTGCACAGTCCAGGCCTGTCCGAATGCTTCCA
GGTGAATGGGGCTGACTACCGCGGCCACCAGAACCCTGACTGGCCCGCGCGGGGGCGGGCCCGCGTGCCTCTTCTG
GGACCAGACGCAGCAACACAGCTACAGCAGCGCCAGCGACCCCCACGGCCGCTGGGGGCTGGGCGCGCACAACTT
CTGCCGTAAACCAGACGGTGACGTGCAGCCGTGGTGCTACGTGGCTGAGACAGAGGAGGGCATCTACTGGCGCTA
CTGCGACATCCCCCTCCTGTACATGCCAGGCTACCTGGGATGCTTTGTGGACTCAGGGGCACCCCCAGCCCTCAG
CGGCCCCAGCGGCACCTCCACGAAGCTCACGGTCCAGGTGTGCCTACGCTTCTGCCGCATGAAGGGGTACCAGCT
GGCGGGCGTGGAGGCCGGTTACGCCTGCTTCTGTGGCTCTGAAAGCGACCTGGCCCGGGGACGCCTGGCCCCCGC
CACCGACTGTGACCAGATCTGTTTCGGCCACCCTGGACAGCTGTGTGGCGGCGATGGGCGGCTGGGCGTCTATGA
AGTGTCCGTGGGCTCCTGCCAGGGGAAGTGGACAGCGCCTCAGGGCGTCATCTACTCCCCGGACTTCCCGGACGA
GTACGGGCGCGACCGGAAGTGCAGCTGGGCCCTGGGCCCGCCAGGCGCGCGCTGGAGCTCACCCTCCGCCTCTT
CGAGCTGGCCGACCCGCGCGACCGGCTGGAGCTGCGCGACGCGGCTTCGGGCAGCCTGCTCCGCGCCTTCGATGG
CGCCCGCCACCGCGCTCCGGGCGGCTGCGCCTGGGCACTGCCGCGCTGCTGCTCACCTTCCGAAGCGACGCGCG
CGGCCACGCGCAAGGCTTCGCGCTCACCTACCGCGGGCTGCAGGACGCGCGCTGAGGACCCAGAGGCCCGGAGGG
CTCGGCCCAGACCCCGCGGCGCCCCCTCGACGGGGCCAACGTGAGCTGCAGCCCCAGGCCTGGGGCTCCGCCGGC
CGCGATTGGGGGAGCTGTCTGCTGGCTCCGGGAAAAGGGCCCCCGGCGCTGGGGGCTTCCAGGGGGCCCCAGGAGA
AGCTGGGCTGTGTGGTACCAACAGCCCCGAGGGGTGGCCTTGCCCTGCTCCCCGGGGACCCCCAGGCTGAGGGT
TCTGCCGCGGGCTACCGGCCTCTGAGTGCCTCCAGCCAGAGCTCCCTGCGCTCGCTCATCTCCGCTCTCTGACTC
TGGGCCCCGAGGGTCCGCTGGGCCCCGCGCGGCGAGATGGACACCTGAGATGCTGTGCTGCGCCCTGCCTCGGC
CTTGCGCCTGTGTAGGGGCAGCTCGGCCTCTGGTGCCTTGGGGAGACCAAAAGTCGGACAGGAAACATCTGGTG
CTATTATCTGGGACTTGGCCTGACCGTGGGGGTCCAGATGGTCCAGGCCCTCTCCATGGACCTGTATGTGGGGT
GGTCTCTGGTTTCGGAGGTCTTTGAACCCCTCTGGGGGTGGTCTTGACTGCCGTCTCAGTGAGAGGTCACAGG
TCAGCAAAAACAGTCAAAAACCCCCACAGATTTTGAATAAAGGATCTACTTTGGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4407

MGTQALQGFLFLLFLPLLQPRGASAGSLHSPGLSECFQVNGADYRGHQNRITGPRGAGRPCLFWDQTQQHSYSSAS
DPHGRWGLGAHNFCRNPDGDVQPWICYVAETEEGIYWRYCDIPSCHMPGYLGCFVDSGAPPALSGPSGTSTKLTIVQ
VCLRFCRMKG YQLAGVEAGYACFCGSESDLARGRLAPATDCDQICFGHPGQLCGGDGRLGVYEVSVGSCQGNWTA
PQGVIIYSPDFPDEYGPDRNCSWALGPPGALELTFRLELADPRDRLELRDAASGSLLRAFDGARPPPSGPLRLG
TAALLLTFRSDARGHAQGFALTYRGLQDAAEDPEAPEGSAQTPAAPLDGANVSCSPRPGAPPAIGGAVCWLREK
GPRRWGLPGAPGEAGLCGTNSPEGWPCPAPPGTPLRLVLP RATGL

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FIGURE 4408

GCTGGGAGTAGAGGGCAGAGCTCCCACCCGCCCCGCCCCAGGGGGCGCCCCGGGCCCGGCGCGAGAGGAGGCA
GAGGGGGCGTCAGGCCGCGGGAGAGGAGGCCATGGGCGCGCGCGGGGCGCTGCTGCTGGCGCTGCTGCTGGCTCG
GGCTGGACTCAGGAAGCCGGAGTCGCAGGAGGCGGCGCGTTATCAGGACCATGCGGCCGACGGGTCATCACGTC
GCGCATCGTGGGTGGAGAGGACGCCGAACCTCGGGCGTTGGCCGTGGCAGGGGAGCCTGCGCCTGTGGGATTCCCA
CGTATGCGGAGTGAGCCTGCTCAGCCACCGCTGGGCACTCACGGCGGCGCACTGCTTTGAAACCTATAGTGACCT
TAGTGATCCCTCCGGGTGGATGGTCCAGTTTGGCCAGCTGACTTCCATGCCATCCTTCTGGAGCCTGCAGGCCTA
CTACACCCGTTACTTCGTATCGAATATCTATCTGAGCCCTCGCTACCTGGGGAATTACCCCTATGACATTGCCTT
GGTGAAGCTGTCTGCACCTGTACCTACACTAAACACATCCAGCCCATCTGTCTCCAGGCCTCCACATTTGAGTT
TGAGAACCGGACAGACTGCTGGGTGACTGGCTGGGGGTACATCAAAGAGGATGAGGCACTGCCATCTCCCCACAC
CCTCCAGGAAGTTCAGGTGCGCCATCATAAACAACTCTATGTGCAACCACCTCTTCCTCAAGTACAGTTTCCGCAA
GGACATCTTTGGAGACATGGTTTGTGCTGGCAATGCCAAGGCGGGAAGGATGCCTGCTTCGGTGACTCAGGTGG
ACCCTTGGCCTGTAACAAGAATGGACTGTGGTATCAGATTGGAGTCGTGAGCTGGGGAGTGGGCTGTGGTCGGCC
CAATCGGCCCCGGTGTCTACACCAATATCAGCCACCCTTTGAGTGGATCCAGAAGCTGATGGCCCAGAGTGGCAT
GTCCCAGCCAGACCCCTCCTGGCCGCTACTCTTTTTCCCTCTTCTCTGGGCTCTCCCACTCCTGGGGCCGGTCTG
AGCCTACCTGAGCCCATGCAGCCTGGGGCCACTGCCAAGTCAGGCCCTGGTTCTCTTCTGTCTTGTGTTGTAATA
AACACATTCCAGTTGATGCCTTGAGGGCATTCTTCAAAA

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FIGURE 4409

MGARGALLLALLLARAGLRKPESQEAAPLSGPCGRRVITSRIVGGEDAELGRWPWQGSRLWDSHVCGVSLLSHR
WALTAAHCFETYSDLSDPSGWMVQFGQLTSMPSFWSLQAYYTRYFVSNIYLSPRYLGNSPYDIALVKLSAPVTTYT
KHIQPICLQASTFEFENRTDCWVTGWGYIKEDEALPSPHTLQEVQVAIINNSMCNHLFLKYSFRKDFGDMVCAG
NAQGGKDACFGDSGGPLACNKNGLWYQIGVVSWSVGCGRPNRPGVYTNISHHFEWIQKLMAQSGMSQPDPSWPLL
FFPLLWALPLLGPV

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FIGURE 4410A

GCAGCGCGGCCAGGCGGGGTGCGAGTGGCGCAGTTGGAGCCCGTTGCGGCCCTGAGGAAGCGAGGAGGCGTCG
GCGTCGGCTGAGGCGGGCGGACCGGCGAGGCGGCGGCCCCAGGCCCGAGGGACTCGGGAGCTCGAGCAGC
GGCGGCGGCAAGACCTCTCCCCCTCGGAGGCGGCGGGCGGAGGCGGCGGGAGCGGTGGTGTCCCCCCCCGGGCACG
GGGCCATGTACAACGGGATCGGGCTGCCGACGCCCCGGGGCAGCGGCACCAACGGCTACGTCCAGCGCAACCTGT
CCCTGGTGCGGGGCCCGGGGTGAGCGGCCCTGACTACAAGGGAGAGGAGGAAGTGC GGCGCCTGGAGGCTGCC
TGGTGAAGCGCCTAATCCTGACATCCTGGACCACGAGCGCAAGCGGCGCGTTCGAGCTGCGATGCCTCGAGCTGG
AGGAGATGATGGAAGAGCAGGGGTACGAGGAACAGCAAATTCAGGAAAAAGTGGCGACCTTTTCTGACTCATGTTGC
TGGAGAAGGATGTGAACCTTGGGGGCAAGGAGGAGACCCAGGGCAGAGGCCAGCGGTACCGGAGACTCACCAGT
TGGCAGAATTAAATGAGAAGAAGAATGAAAGACTCCGTGCTGCCCTTTGGCATCAGTGATTCTTACGTAGATGGCA
GCTCTTTTGATCCTCAGCGTCTGTGCCGAGAAGCTAAACAACAGCTCCTGAGCCTCCCAAACCTTACAGCCTTG
TTCGGGAGTCTAGCAGTTCTCGCTCACCAACCCCAAAGCAGAAAGAAAGAAAAAGAAAGATAGAGGACGCA
GGTCAGAGAGCAGCTCTCCTCGACGGGAGAGAAAAGAAAGCTCAAAAGAAAGAAAGCACAGGTGAGAATCTGAGT
CCAAGAAACGTAAGCATAGGTCTCCACTCCAAAGAGCAAAACGTAATCTAAGGACAAAAAGCGAAAGCGGTCTC
GAAGTACAACACCAGCCCCAAGAGCCGCCGGGCCACCGTTCAACTTCTGCTGACTCTGCTTCTCCTCCGATA
CTTCCCGCAGTCGGTCTCGAAGTGCTGCAGCTAAAAGTCTATACAAGTGCCTTGGCTGGGCGAAGTCTTCCCTG
CTTCAGGGCGACGCGGGGAGGGAGATGCGCCTTTCAGTGAACAGGTACTACCAGCACACAACGGCCTAGTAGCC
CGGAGACTGCTACGAAACAGCCTAGCAGCCCTTATGAAGACAAAAGATAAAGACAAGAAGGAGAAATCTGCAACTC
GACCTAGCCCCCTCTCCGAAAGGAGCAGCACAGGCCAGAACCACTGCTCCACTCCGCTCCTTGTGAGCGAC
ATGGCGGCTCCCCACAACCCCTTGCAACCACCCCTTAAGCCAGGAGCCAGTGAACCCCCATCTGAGGCCTCTC
CAACTCGGGACCGTTACCACCTAAGTCTCCCGAGAACTTCCCCAGTCTTCTTCTCAGAGAGCAGCCCACCAT
CCCCCAACCTACCAAGTTTCTCGGCATGCCAGCTCTCCCCAGAAAGTCTAAACCTGCTCCAGCTCCAGGGT
CCCACCGAGAGATTCTTCTTCTCCACATCTAAGAATCGCTCACATGGCCGAGCAAAACGGGATAAATCACATT
CTCATACCCCTCCCGTAGGATGGGGAGGTCCCGTAGCCCTGCCACCGCTAAGAGAGGGCGATCTCGGTCTCGAA
CCCCACCAAGAGAGGTCAATTCTCGATCCCGATCTCCCCAGTGGCGTAGGTCCAGGTCTGCACAGAGGTGGGGAA
GATCTAGAAGCCCCCAGCGACGTGGCCGCTCTAGGTCTCCTCAGCGACCAGGCTGGTCTAGGAGCAGAAATACCC
AGAGAAGAGGCAGGTCTAGGTACGAAGGCGAGGGAGGTCCACTCTAGATCCCCAGCCACTAGGGGTAGATCTC
GTTCTAGAACACCAGCCCGCCGGGGCAGGTCCCGCTCTAGAACACCTGCCAGGCGGAGATCAGATCCAGAAGT
CCACCAGGCGTAGGTCTCGGTCTAGAACACCAGCCGGAGGGGAGGTCTCGGTCTAGAACACCTGCTAGGCGCA
GATCTAGGACCCGATCACCAGTACGACGCAGGTCTCGTAGTAGATCACCAGCCAGGAGAAGTGGCAGGTACGCT
CTAGAACCCAGCTAGACGTGGCCGCTCAGCTCCAGAACCCAGCCAGACGTGGCCGCTCAGCTCTAGAACCC
CAGCTAGACGCAGTGGTCTGCTCAGCTCCAGAACACCAGCCAGGAGAGGGAGGTCTCGGTCTAGGACACCAAGAC
GAGGAAGATCCCGCAGTAGAAGCTTAGTTAGACGTGGAAGATCTCACTCTAGAACACCTCAAAGAAGAGGCAGAT
CTGGCTCATCTTCAGAGCGGAAAAACAAATCCAGAACATCTCAAAGAAGAAGCAGGTCCAATTCAAGCCCAGAAA
TGAAGAAATCTCGCATTTCTTCAAGGCGGAGCAGGTCTCTCTTACCACGGTCCAAAGCAAAATCTCGCTTGT
CTTTGAGGCGCAGCCTTTCAGGGTCTTCCCCATGCCCTAAACAAAAGTCAAGACACCACCCAGGCGCAGTCGCT
CTGGATCCTCCCAACCTAAAGCTAAATCTAGAACGCCACCCAGACGCAGTCGCTCCAGTTCTTCTCCGCCACCTA
AACAGAAATCTAAGACACCATCAAGACAAAGTCAATCCAGTTTCTCTCATCCTAAAGTGAAATCTGGAACAC
CACCGAGGCAAGGGTCCATAACAAGTCCCCAGGCCAATGAGCAATCTGTAACGCCACAGAGACGGAGCTGTTTTG
AATCATACCTGACCTGAGTTGAAATCTAGGACCCCTTCTAGACATAGCTGCTCAGGGTCTCTCTCTCTAGAG
TGAAATCTAGCACACCTCCAGACAGAGCCCATCTAGGTCTATCTCCACAACCCAAAGTGAAGGCAATAATAT
CACCAAGACAAAGAAGCCATTCTGGCTCCTCTTCTCCAAGTCTTAGTGGGTGACGTCGAGAACAACCTCCACGGC
GAAGCAGATCAGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATACAGTCATTCTGGGTCTCTCT
CACCAGATACCAAAGTGAAACCTGAAACACCGCCAAGACAAAGTCACTCAGGGTCTATTTACCATAACCCAAAG
TAAAGGCCCAAACCTCCACCGGGGCCAAGTCTTCTGGATCAAAGTCACCATGTCCCCAAGAGAAGTCTAAAGACT
CACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTGTGTCAGGAGTAAATCTAGCACACCACAGGCGAGAGCT
ATTTTGGTGTCTCATCTCTGCAACTGAAAGGACAATCTCAAACCTCACCAGACCACAGATCTGATACTCAAGTC
CAGAAGTGAGACAGAGTCATTGAAATCACCATCTCTGCAGAGCAAATCTCAAACATCACCTAAGGGAGGTGGT
CCAGGTCTTCATCTCCAGTCACTGAGCTGGCATCCAGATCTCCAATAAGACAAGATAGAGGTGAGTTCTCAGCGA

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FIGURE 4410B

GTCTATGTTGAAATCTGGAATGTCTCCTGAGCAGAGCAGGTTCCAGTCTGACTCTTCTTCATATCCTACAGTGG
ACTCGAATTCTCTCTTGGGGCAGAGTAGATTGGAGACTGCTGAATCAAAAAGAGAAAATGGCCTTACCCCTCAGG
AGGATGCTACTGCATCACCTCCTAGACAGAAAGACAAATTTAGTCCCTTTCCAGTACAGGATAGGCCTGAGTCTT
CACTGGTATTCAAAGACACACTTAGAACCCCGCCAGGGAAAAGTGGTGCTGGGTCATCTCCAGAAAACAAAAG
AGCAAAATAGTGCATTGCCCTACGTCAAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCCG
CAGGCCAAATCCTGTCTCATTGTCTTCAGAACTTAAAGAAATGTCCACAAGTAACTTTGAATCATCTCCTGAAG
TAGAAGAAAGGCCTGCTGTGTCTTTGACTCTTGATCAGAGCCAGTCACAGGCTTCTTTGGAAGCAGTAGAAGTCC
CTTCAATGGCCTCATCTTGGGGTGGGCCACATTTTTCTCCAGAACATAAAGAACTGTCTAACTCCCCACTCAGGG
AGAACAGCTTTGGATCACCTTTAGAATTTAGAACTCAGGCCCACTTGGTACAGAAATGAATACTGGATTTTCTT
CTGAGGTTAAAGAAGATTTGAATGGACCGTTTCTTAATCAGCTGGAAAACAGATCCATCTCTAGACATGAAAGAAC
AATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGCAGGGATGTCTTCAA
ATCAGAGCATCTCTTACCTGTGCTTGATGCTGTACCCAGAACACCCCTCGAGAGAAAAGAGTAGTTCTGCATCTT
CTCCTGAAATGAAAGATGGTTTACCCAGAACTCCATCAAGGAGAAGCAGGTCTGGGTCTTCTCCAGGACTTAGAG
ATGGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGGTCTCTCTGGAATGAAAGATATACCTAGAACGCCAT
CTAGAGGGAGAAGCGAATGTGATTCTTCCCCAGAACCGAAAGCTTTGCCTCAGACTCCTAGGCCGAGGAGTCGTT
CTCCATCATCCCCAGAGCTCAACAACAAGTGTCTTACCCCCAGAGAGAAAAGAGCGGGTCAGAATCATCAGTTG
ATCAGAAAACGTGTGGCTCGGACTCCCTGGGGCAGAGAAGTCGTTTCGGGATCCTCTCAAGAACTTGATGTGAAAC
CCAGTGCATCCCTCAGGAAAGAAGTGAGTCAGACTCTTCTCCAGATTCTAAAGCCAAGACAAGAACCCCACTTC
GGCAGAGGAGTCGGTCTGGATCATCTCCAGAGGTTGACAGCAAATCTCGACTATCCCTCGGCGCAGTAGGTCTG
GTTCTCTCCCTGAAGTGAAGATAAGCCAAGAGCAGCACCAGGGCACAGAGTGGTTCTGATTCTCTCTGAAC
CTAAAGCTCCAGCCCTCGGGCCCTTCCCAGACGAAGCAGATCAGGTTTCATCAAGCAAAGGCAGAGGCCCTTCTC
CTGAAGGAAGCAGCAGTACCGAGTCTCTCTGAAATCCGCCAAATCCAGAACTGCTCGCAGAGGTTCCAGGT
CATCACCAGAGCCCAAGACCAAGTCTCTGTACACCACCTCGACGTCGCAGCTCTCGATCATCTCCGAGCTAACAA
GGAAGGCCAGACTGTCCCGTAGAAGCCGCTCTGCCTCATCTCACCAGAACTCGCTCTAGAACTCCCCCAAGGC
ACCGGAGAAGTCCCTCAGTGTCTTCCCCGGAGCCAGCCGAAAATCGAGGTCTTACGCCGACGCCGCTCAGCTT
CATCTCCACGCACTAAGACAACCTCAAGGAGAGGCCGCTCTCTTCCGCCAAAGCCTCGTGGACTCCAGAGGTCCC
GTTCCCGCTCAAGGAGAGAGAAAACAAGAACAACCCGACGTCGAGATAGGTCTGGATCTTCTCAGTCAACCTCTC
GGCGAAGACAGCGGAGCCGGTCAAGGTCTGCGGGTTACTCGGCGGCGGAGGGGAGGCTCTGGTTATCACTCAAGGT
CACCTGCCCGGCAGGAAAGTTCCCGGACCTCTCTCGACGCCGAAGAGGCCGCTCTCGGACACCCCAACCAAGTC
GGAAGCGTTCTCGCTCACGCACATCACCAGCCCCGTGGAAACGCTCTAGATCTCGAGCCTCTCCAGCCACTCACC
GGCGATCCAGGTCCAGAACCCCCCTGATAAGCCGACGTAGGTCCAGATCTCGAACTTCACCAGTCAGCCGGAGAC
GGTCAAGGTCCAGGACTTCAGTGAATCGACGAAGATCCCGGTCAAGAGCATCCCCAGTGAGCAGAAGGCGATCCA
GATCCAGAACGCCACCAGTAACCCGCCGTCGTTCAAGGTCTAGAACGCCAACACAGCCGCCGCTCCCGTTCTA
GAACTCCACCAGTGAATCGCAGAAGGTCCAGATCCAGGACTCCACCAGTAACAGGAGGCGATCTCGAAGCAGAA
CTTCGCCTATCACTCGCAGAAGATCAAGATCCAGAATCTCCGGTCAACCGAAGGAGATCTCGATCTCGCACAT
CTCCAGTAACTCGAAGAAGGTCCCGCTCTCGAACCTCACCAGTGACACGCCGCCGCTCTAGGTCCCGGACACCTC
CAGCACAGGATCAGCCGAGGTCTCCTGTGCCTTCTGCTTTTTCAGACCAATCCCGTTGTTTGATTGCCAGACCA
CCCCTGTAGCAGGGTCTCAGTCCCTTTCTCTGGGGCAGTGGCAACGACCACGTCCTCTGCTGGTGATCACAATG
GCATGCTCTCTGTCCCTGCCCTGGGGTGCCCACTCTGATGTGGGGGAGCCACCTGCCTCTACTGGGGCCCAGC
AGCCTTCTGCATTAGCCGCCCTGCAGCCAGCAAAGGAGCGGCGAGTTCTCTCTCGTCGTCGTCGTCCTCTAGCT
CCTCTCTCTCTTCATCATCGTCGTCGTCGTCCTCTCTCTCTCTGCTCCAGTTCTAGTGACTCAGAGGGCTCTA
GCCTTCTCTGTGAACCTGAGGTGGCACTGAAGAGGGTCCCCAGCCCCACCCAGCCCCAAGGAGGCTGTTCGAG
AGGGACGTCCTCCGGAGCCAACCCAGCCAAACGGAAGAGGCGCTCTAGCAGTTCCAGTTCCAGTCTCTCTCTT
CATCTTCT
CCT
AGCCACCCCTGGCGAGCGGAGGTCCCGCAGCCCCCGGAAGCCAATAGACTCCCTCAGGGACTCTCGGTCCCTCA
GCTACTCGCCTGTGGAGCGTCGCCGTCCCTCGCCCCAGCCCTCACCACGGGACCAGCAGAGCAGCAGTGAAGC
GGGGTTCCCGGAGAGGCCAGCGTGGGGACAGCCGCTCCCCAGCCACAAGCGCAGGAGGGAGACACCTAGCCCTC

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FIGURE 4410C

GGCCCATGAGACACCGCTCCTCCAGGTCTCCATAAATTGTCTTTGGGGGATTCCACCACACCCAATGCTCTGGAG
CCACAAGGAGTGTCCTTTCTTCCCCAGCAGAGCCGTGGGAGGGTCCTTGCTGCTCTCCTTTGAACCTTGGCAGC
CCTTGGATGGAGGGCTCCCTTTCCCTCCCCTTTTTTTTTCTTTGTTCTGTGAAATGTTAATCTCCGTGAGTTC
TTCCTGGTTTCATGTGTTCTGGGGGGTTTGGGGTGGGAGGGAATGCAGATGGGAGTTGGGGGAGGGGAGGATACAG
TTCAGGATACCCCAGCCTGGAGTCAGGGCCAGGGAGGCATGGCCCCACTTGTATCCAGAAGTTCCCAGGGGTGAT
TGATGATGGTGGTTGGGACTGGAGGTTGTATAAGGTGTTCTTGGAAGGAAGGGGCAGGAGTTGGAATTAGTTGGTC
CCTACTGTCCCCCATGAGGTTGTGAACCCCTCCCCCACTTTTCATGTTTCTTAAAGGCATTTTGGTTTTTTAA
AATCTGTACAGCAAGAGCAACTTTTTCTGTCAAATAAAAAATGAGAAATGCAGG

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FIGURE 4411

ATGCTGCCGGCGGGCTGCTCGCGCCGGTGAGGCCTGCGCGGCAGGAGGGGGTGGGAGGATGCGGGCGGGCCGGTA
GCCAGGCGCGGGGCCCCGAGGCCCCGACGCTGGCCGAGGTGCTGAGCCGCCGGTGCGTCCCCCAGGCTGGTGGCCGA
GCTGCAGGGCGCCCTGGACGCCTGCGCACAGCGACAATTGCAATTGGAGCAGAGCCTGCGCGTTTGCCGTGGCT
GCTGCATGCCTGGGAACCAACTGGGACCCGGGCTTTGAAGCCACCTCCAGGGCCAGAACTAATGGAGAGGACCC
CCTTCCAGCATGCACACCCAGTCCACAAGACCTCAAAGAGTTGGAGTTTCTGACCCAGGCACTGGAGAAGGCTGT
ACGAGTTCGAAGAGGCATCACTAAGGCCGGAGAGAGAGACAAGGCCCCCAGCCTGAAATCTAGGTCCATTGTAC
CTCTTCTGGCACGACAGCCTCCGCCCCACCGCATTCGCCAGGCCAAGCTGGTGGCCATGCTTCAGACACGAGACC
CACCAAGGGCCTCCGCCAGACCACGGTGCTGCCAAGGGCCACCCTGAGCGCCGGCTGCTGTCAAGTGGGGATGG
GACCCGTGTTGGGATGGGAGCCCCGAACCCCCAGGCCTGGGGCGGGCCTCAGGGACCAGCAAATGGCCCCATCCGC
TGCTCCTCAGGCCCCAGAAGCCTTCACACTCAAGGAGAAGGGGCACCTGCTGCGGCTGCCTGCGGCATTGAGAA
AGCAGCTTCCCAGAACTCGAGCCTGTGGGCCCAGCTCAGTTCCACACAGACCAGTGATTCCACGGATGCCGCCGC
TGCCAAAACCCAGTTCCTCCAGAACATGCAGACAGCTTCAGGCGGGCCCCAGCCCAGGCTCAGTGCTGTGGAGGT
GGAGGCGGAGGCGGGGCGCCTGCGGAAGGCCTGCTCGCTGCTGAGACTGCGCATGAGGGAGGAGCTCTCAGCAGC
CCCCATGGACTGGATGCAGGAGTACCGCTGCCTGCTCACGCTGGAGGGGCTGCAGGCCATGGTGGGCCAGTGTCT
GCACAGGCTGCAGGAGCTGCGTGACGCGGTGGCGGAACAGCCACCAAGACCATGTCCTGTGGGGAGGCCCCCGG
AGCCTCGCCGTCTGTGGGGTAGAGCGGAGCCTGCATGGAGCCCCCAGCTGCTTGTCTACTCCAGCACCCAGGA
GCTGCAGACCCCTGGCGGCCCTCAAGCTGCGAGTGGCTGTGCTGGACCAGCAGATCCACTTGGAAAAGGTCCTGAT
GGCTGAACTCCTCCCCCTGGTAAGCGCTGCACAGCCGCGAGGGGCCGCCCTGGCTGGCCCTGTGCCGGGCTGTGCA
CAGCCTGCTCTGCGAGGGAGGAGCACGTGTCTTACCATCCTGCGGGATGAACCTGCAGTCTGAGCCCTTCCCAT
GCTGCCCTCGGCCTGTTGAGATGGGGATTGGGGGTGTCTTCCCTGGCACTGTGCTCGGGGACCCAGAGATGCCTG
TGCTTCCCTGGGAAACCTGGTGAACCTGGACCAGGTGGCCTCACTGGCTCTTCTCAGGACAACCTAAGCCTGCTGGT
CAGGGCTGGCTTTCAGCCTTCCTAAGGCTCCTGGACTCCAGAGGCCAGCGGGGAGCCTTTCCTGGCTCCCTCTGT
TTTCTCTCACTGTAGACCAAAGAGCCGCTTGTGTGATATTAAAGCCACTTTAGAAAGC

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FIGURE 4412

MGARTPRPGAGLRDQQMAPSAAPQAPEAFTLKEKGHLLRLPAAFRKAASQNSSLWAQLSSTQTSDSTDAAAKTQ
FLQNMQTASGGPQPRLSAVEVEAEAGRLRKACSLRLRMREELSAAPMDWMQEYRCLLTLEGLQAMVGQCLHRLQ
ELRAAVAEQPPRPPVGRPPGASPCGGRAEPAWSPQLLVYSSTQELQTLAALKLRVAVLDQQIHLEKVLMAELL
PLVSAAQPQGPPWLALCRAVHSLCEGGARVLTILRDEPAV

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FIGURE 4413A

GCAGCGCGGCCAGGCGGGGTGCGAGTGGCGCAGTTGGAGCCCGTTGCGGCCCTGAGGAAGCGAGGAGGCGTCG
GCGTCGGCTGAGGCGGGCGGACCGGCGAGGCGAGGCGGCGGCCCCAGGCCCCAGGGACCTCGGGAGCTCGAGCAG
CGGCGGCGGCAAGACCTCTCCCCCTCGGAGGCGGCGGGCGGAGGCGGCGGGAGCGGTGGTGGCCCCCGGGCAC
GGGGCCATGTACAACGGGATCGGGCTGCCGACGCCCCGGGGCAGCGGCACCAACGGCTACGTCCAGCGCAACCTG
TCCCTGGTGCGGGGCCGCCGGGTGAGCGGCTGACTACAAGGGAGAGGAGGAAGTGGCGCGCTGGAGGCTGCC
CTGGTGAAGCGGCCTAATCCTGACATCCTGGACCACGAGCGCAAGCGGCGCGTCGAGCTGCGATGCCTCGAGCTG
GAGGAGATGATGGAAGAGCAGGGGTACGAGGAACAGCAAAATTCAGGAAAAAGTGGCGACCTTTCGACTCATGTTG
CTGGAGAAGGATGTGAACCTTGGGGCAAGGAGGAGACCCAGGGCAGAGGCCAGCGGTACGGAGACTACCCAG
TTGGCAGAATTAATGAGAAGAAGATGAAAGACTCCGTGCTGCCTTTGGCATCAGTGATTCTTACGTAGATGGC
AGCTCTTTTGATCCTCAGCGTCGTGCCGAGAAGCTAAACAACCCAGCTCCTGAGCCTCCCAAACCTTACAGCCTT
GTTCCGGAGTCTAGCAGTTCTCGCTCACCACCCCAAAGCAGAAGAAGAAGAAAAAGATAGAGGACGC
AGGTGAGAGAGCAGCTCTCCTCGACGGGAGAGAAAGAAAAGCTCAAAGAAGAAGAAGCACAGGTGAGAAATCTGAG
TCCAAGAAACGTAAGCATAGGTCTCCACTCCAAAGAGCAAAAGTAAATCTAAGGACAAAAAGCGAAAGCGGTCT
CGAAGTACAACACCAGCCCCCAAGAGCCGCCGGGGCCACCCTTCAACTTCTGCTGACTCTGCTTCTCTCTCCGAT
ACTTCCCGCAGTCGGTCTCGAAGTGTGTCAGCTAAACTCATACAAGTGCCTTGGCTGGGCGAAGCTCTTCCCT
GCTTCAGGGCGACGCGGGGAGGGAGATGCGCCTTTCAGTGAACCAGGTACTACCAGCACACAAGGCGCTTAGC
CCGGAGACTGCTACGAAACAGCCTAGCAGCCTTATGAAGACAAAGATAAAGACAAGAAGGAGAAATCTGCAACT
CGACCTAGCCCCCTCTCCGAAAGGAGCAGCACAGGCCCAGAACCACCTGCTCCCACTCCGCTCCTTGCTGAGCGA
CATGGCGGCTCCCCACAACCCCTTGCAACCACCCCTTAAAGCCAGGAGCCAGTGAACCCCCCATCTGAGGCCTCT
CCAAGTCCGGACCGTTTACCACCTAAGTCTCCCGAGAAACTTCCCCAGTCTTCTTCTCAGAGAGCAGCCACCA
TCCCTCAACCTACCAAAGTTTCTCGGCATGCCAGCTCTTCCCCAGAAAGTCTTAAACCTGCTCCAGCTCCAGGG
TCCACCGAGAGATTTCTTCTTCTCCACATCTAAGAATCGCTCACATGGCCGAGCAAAAACGGGATAAATCACAT
TCTCATACCCCTCCCGTAGGATGGGGAGGTCCCGTAGCCCTGCCACCGCTAAGAGAGGGCGATCTCGGTCTCGA
ACCCCTACCAAGAGAGGTCTTCTCGATCCCGATCTCCCCAGTGGCGTAGGTCCAGGTCTGCACAGAGGTGGGGA
AGATCTAGAAGCCCCCAGCGACGTGGCCGCTCTAGGTCTCCTCAGCGACCAGGTGGTCTAGGAGCAGAAATACC
CAGAGAAGAGGCAGGTCTAGGTGAGCAAGGCGAGGGAGGTCCCACTCTAGATCCCCAGCCACTAGGGGTAGATCT
CGTTCTAGAACACCAGCCCGCGGGGAGGTCCCGCTCTAGAACACCTGCCAGGCGGAGATCACGATCCAGAACT
CCCACCAGGCGTAGGTCTCGGTCTAGAACACCAGCCCGAGGGGAGGTCTCGGTCTAGAACACCTGCTAGGCGC
AGATCTAGGACCCGATCACCAGTACGACGAGGTCTCGTAGTAGATCACCAGCCAGGAGAGTGGCAGGTACGC
TCTAGAACCCAGCTAGACGTGGCCGCTCAGCTCCAGAACCCAGCCAGACGTGGCCGCTCAGCTCTAGAACC
CCAGCTAGACGAGTGGTCTCAGCTCCAGAACACCAGCCAGGAGAGGGAGGTCTCGGTCTAGGACACCAAGA
CGAGGAAGATCCCGCAGTAGAAGCTTAGTTAGACGTGGAAGATCTCACTCTAGAACACCTCAAAGAAGAGGCAGA
TCTGGCTCATCTTTCAGAGCGGAAAAACAAATCCAGAACATCTCAAAGAAGAAGCAGGTCCAATTCAAGCCAGAA
ATGAAGAAATCTCGCATTTCTTCAAGGCGGAGCAGGTCTCTCTCTTACCACGGTCCAAAGCAAAATCTCGCTTG
TCTTTGAGGCGCAGCCTTTAGGGTCTTCCCCATGCCCTAAACAAAAGTACAGACACCACCCAGGCGCAGTCGC
TCTGGATCCTCCCAACCTAAAGCTAAATCTAGAAGCCACCCAGACGAGTCGCTCCAGTTCTTCTCCGCCACCT
AAACAGAAATCTAAGACACCATCAAGACAAAGTCATTCCAGTTTCATCTCCTCATCCTAAAGTGAATCTGGAACA
CCACCGAGGCAAGGGTCCATAACAAGTCCCCAGGCCAATGAGCAATCTGTAACGCCACAGAGACGGAGCTGTTTT
GAATCATCACCTGACCCTGAGTTGAAATCTAGGACCCCTTCTAGACATAGCTGCTCAGGGTCTCTCTCTCTAGA
GTGAAATCTAGCACACCTCCAGACAGAGCCATCTAGGTATCATCTCCACAACCCAAAGTGAAGGCAATAATA
TCACCAAGACAAAGAAGCCATTCTGGCTCCTTCTTCCAAGTCTTAGTAGGGTGACGTCGAGAACAACTCCACGG
CGAAGCAGATCAGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATACAGTCATTCTGGGTCTCC
TCACCAGATACCAAAGTGAACCTGAAACACCGCCAAGACAAAGTCACTCAGGGTCTATTTACCATACCCCAA
GTAAAGGCCCAAACCTCCACCGGGGCCAAGTCTTTCTGGATCAAAGTCAACATGTCCCCAAGAGAAGTCTAAAGAC
TCACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTCTGTGAGGAGTAAATCTAGCACACCACAGGCGAGAGC
TATTTTGGTGTCTCATCTCTGCAACTGAAAGGACAATCTCAAACCTTACCAGACCACAGATCTGATACTTCAAGT
CCAGAAGTGAGACAGAGTCATTGAGAATCACCATCTCTGAGAGCAAATCTCAAACATCACCTAAGGGAGGTCCG
TCCAGGTCTTTCATCTCCAGTCACTGAGCTGGCATCCAGATCTCCAATAAGACAAGATAGAGGTGAGTTCTCAGCG

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FIGURE 4413B

AGTCCTATGTTGAAATCTGGAATGTCTCCTGAGCAGAGCAGGTTCCAGTCTGACTCTTCTTCATATCCTACAGTG
GACTCGAATTCTCTCTTGGGGCAGAGTAGATTGGAGACTGCTGAATCAAAAGAGAAAATGGCCTTACCCCTCAG
GAGGATGCTACTGCATCACCTCCTAGACAGAAAGACAAATTTAGTCCCTTTCCAGTACAGGATAGGCCTGAGTCT
TCACTGGTATTCAAAGACACACTTAGAACCCCGCCAAGGGAAAGAGTGGTGCTGGGTCTCTCCAGAAACAAAA
GAGCAAAATAGTGCAATTGCCTACGTCAAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCC
GCAGGCCAAATCCTGTCTCATTTGTCTTCAGAACTTAAAGAAATGTCCACAAGTAACTTTGAATCATCTCCTGAA
GTAGAAGAAAGGCCTGCTGTGTCTTTGACTCTTGATCAGAGCCAGTACAGGCTTCTTTGGAAGCAGTAGAAGTC
CCTTCAATGGCCTCATCTTGGGGTGGGCCACATTTTCTCCAGAACATAAAGAACTGTCTAACTCCCCACTCAGG
GAGAACAGCTTTGGATCACCTTTAGAATTTAGAACTCAGGCCCACTTGGTACAGAAATGAATACTGGATTTTCT
TCTGAGGTAAAGAAGATTTGAATGGACCGTTTCTTAATCAGCTGGAAACAGATCCATCTCTAGACATGAAAGAA
CAATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGCAGGGATGTCTTCA
AATCAGAGCATCTCTTACCTGTGCTTGATGCTGTACCCAGAACACCTTCGAGAGAAAGAAGTAGTTCTGCATCT
TCTCCTGAAATGAAAGATGGTTTACCCAGAACTCCATCAAGGAGAAGCAGGTCTGGGTCTTCTCCAGGACTTAGA
GATGGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGGTCTCTCCTGGAATGAAAGATATACCTAGAACGCCA
TCTAGAGGGAGAAGCGAATGTGATTCTTCCCCAGAACCGAAAGCTTTGCCTCAGACTCCTAGGCCGAGGATCGT
TCTCCATCATCCCCAGAGCTCAACAACAAGTGTCTTACCCCCAGAGAGAAAGCAGGGTCAAGATCATCAGTT
GATCAGAAAATGTGGCTCGGACTCCCCTGGGGCAGAGAAGTCGTTTCGGGATCCTCTCAAGAACTTGATGTGAAA
CCCAGTGCATCCCCCAGGAAAGAAGTGAGTCAGACTCTTCTCCAGATTCTAAAGCCAAGACAAGAACCCCACTT
CGGCAGAGGAGTCGGTCTGGATCATCTCCAGAGGTTGACAGCAAAATCTCGACTATCCCCCTCGGCGCAGTAGGTCT
GGTTCTCTCCCCGTAAGTGAAAGATAAGCCAAGAGCAGACCCAGGGGCACAGAGTGGTTCTGATTCTCTCCTGAA
CCTAAAGCTCCAGCCCCCTCGGGCCCTTCCAGAGCAAGCAGATCAGGTTCTATCAAGCAAAGGCAGAGGCCCTTCT
CCTGAAGGAAGCAGCAGTACCGAGTCTCTCCTGAACATCCGCCCAAATCCAGAACTGCTCGCAGAGGTTCCAGG
TCATCACCAGAGCCCCAAGACCAAGTCTCGTACACCACCTCGACGTCGCAGCTCTCGATCATCTCCGGAGCTAAACA
AGGAAGGCCAGACTGTCCCGTAGAAGCCGCTCTGCCTCATCCTACCAGAACTCGCTCTAGAACTCCCCCAAGG
CACCGGAGAAGTCCCTCAGTGTCTTCCCCGGAGCCAGCCGAAAAATCAGAGGTCTTCACGCCGACGGCGCTCAGCT
TCATCTCCACGCACTAAGACAACCTCAAGGAGAGGCCGCTCTCCTTCGCCAAAGCCTCGTGGACTCCAGAGGTCC
CGTTCCCGCTCAAGGAGAGAGAAAAACAAGAACAAACCCGACGTCGAGATAGGTCTGGATCTTCTCAGTCAACCTCT
CGGCGAAGACAGCGGAGCCGGTCAAGGTTCGCGGGTTACTCGGCGGCGAGGGGAGGCTCTGGTTATCACTCAAGG
TCACCTGCCCCGGCAGGAAAGTTCCCGGACCTCCTCTCGACGCCGAAGAGGCGCTCTCGGACACCCCCAACCCAGT
CGGAAGCGTTCTCGCTCACGCACATCACCAGCCCCGTGGAACGCTCTAGATCTCGAGCCTCTCCAGCCACTCAC
CGGCGATCCAGGTCCAGAACCCCCCTGATAAGCCGACGTAGGTCCAGATCTCGAACTTACCAGTCAGCCGGAGA
CGGTCAAGGTCCAGGACTTCAGTGACTCGACGAAGATCCCGGTCAAGAGCATCCCCAGTGAGCAGAAGGCGATCC
AGATCCAGAACGCCACCAGTAACCCGCCGTGCTTCAAGGTCTAGAACGCCAACACACGCCGCCGCTCCCCGTCT
AGAACTCCACCAGTGACTCGCAGAAGGTCCAGATCCAGGACTCCACCAGTAACCAGGAGGCGATCTCGAAGCAGA
ACTTCGCCTATCACTCGCAGAAGATCAAGATCCAGAACATCTCCGGTCACCCGAAGGAGATCTCGATCTCGCACA
TCTCCAGTAACTCGAAGAAGGTCCCGCTCTCGAACCTCACCAGTGACACGCCGCCGCTCTAGGTCCCGGACACCT
CCAGCACAGGATCAGCCGAGGTCTCCTGTGCCTTCTGCTTTTTAGACCAATCCCGTTGTTTGATTGCCAGACC
ACCCCTGTAGCAGGGTCTCAGTCCCTTTCTCTTGGGGCAGTGGCAACGACCACGTCTCTGCTGGTGATCACAAT
GGCATGCTCTCTGTCCCTGCCCCGTTGGGGTGGCCCACTCTGATGTGGGGGAGCCACCTGCCTCTACTGGGGCCCAG
CAGCCTTCTGCATTAGCCGCCCTGCAGCCAGCAAAGGAGCGGCGGAGTTCTCTCTCGTCGTCGTCCTCTAGC
TCCTCCTCTTCTCATCATCGTCGTCGTCGTCCTCTCTCTCTCTGCTCCAGTTCTAGTGACTCAGAGGGCTCT
AGCCTTCTGTGCAACCTGAGGTGGCACTGAAGAGGGTCCCCAGCCCCACCCAGCCCCAAAGGAGGCTGTTTGA
GAGGGACGTCCTCCGGAGCCAACCCAGCCAACCGGAAGAGGCGCTCTAGCAGTTCCAGTTCCAGCTCCTCTCT
TCATCT
TCCT
AAGCCACCCCTGGCGAGCGGAGGTCCCGCAGCCCCCGGAAGCCAATAGACTCCCTCAGGGACTCTCGGTCCCTC
AGCTACTCGCTGTGGAGCGTCGCCGTCCCTCGCCCCAGCCCTCACCACGGGACCAGCAGAGCAGCAGCAGTGAG
CGGGTTCCCGGAGAGGCCAGCGTGGGGACAGCCGCTCCCCCAGCCACAAGCGCAGGAGGGAGACACCTAGCCCT

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FIGURE 4413C

CGGCCCATGAGACACCGCTCCTCCAGGTCTCCATAAATTGTCTTTGGGGGATTCCACCACACCCAATGCTCTGGA
GCCACAAGGAGTGTCCCTTCTTCCCCAGCAGAGCCGTGGGAGGGTCCTTGTCTGCTCTCCTTTGAACCTTGGCAG
CCCTTGGATGGAGGGCTCCCTTTCCCTCCCCTTTTTTTTTTCTTTGTTCCCTGTGAAATGTTAATCTCCGTGAGTT
CTTCTGGTTTCATGTGTTCTGGGGGGTTTGGGGTGGGAGGGAATGCAGATGGGAGTTGGGGGAGGGGAGGATACA
GTTTCAAGGATACCCAGCCTGGAGTCAGGGCCAGGGAGGCATGGCCCCACTTGTATCCAGAAGTTCCCAGGGGTGA
TTGTGATGGTGGTTGGGACTGGAGGTTGTATAAGGTGTTCTTGAAGGAAGGGGCAGGAGTTGGAATTAGTTGGT
CCCTACTGTCCCCCATGAGGTTGTGAACCCCTCCCCCAACTTTTCATGTTTCTTAAAGGCATTTTGGTTTTTTA
AAATCTGTACAGCAAGAGCAACTTTTTCTGTCAAATAAAAATGAGAAATGCAGG

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FIGURE 4414

CGACATGGCGCGCGAGCTGCGGGCGCTGCTGCTGTGGGGCCGCCCTGCGGCCCTTTGCTGCGGGCGCCGGCGCT
GGCGGCCGTGCCGGGAGGAAAACCAATTCTGTGTCTCGGAGGACCACAGCCCAGTTGGGCCCCAGGCGAAACCC
AGCCTGGAGCTTGAGGCAGGACGACTGTTTCAGCACGCAGACCGCCGAGGACAAGGAGGAACCCCTGCACTCGAT
TATCAGCAGCACAGAGAGCGTGCAGGGTTCCACTTCCAAACATGAGTTCCAGGCCGAGACAAAGAAGCTTTTGGA
CATTGTTGCCCGGTCCCTGTACTCAGAAAAAGAGGTGTTTATACGGGAGCTGATCTCCAATGCCAGCGATGCCTT
GGAAAACTGCGTCACAACTGGTGTCTGACGGCCAAGCACTGCCAGAAATGGAGATTCACTTGACAGCAATGC
CGAGAAAGGCACCATCACCATCCAGGATACTGGTATCGGGATGACACAGGAAGAGCTGGTGTCCAACCTGGGGAC
GATTGCCAGATCGGGGTCAAAGGCCCTTCCTGGATGCTCTGCAGAACAGGCTGAGGCCAGCAGCAAGATCATCGG
CCAGTTTGGAGTGGGTTTCTACTCAGCTTTCATGGTGGCTGACAGAGTGGAGGTCTATTCCCGCTCGGCAGCCCC
GGGGAGCCTGGGTTACAGTGGCTTTCAGATGGTCTGGAGTGTGTTGAAATCGCCGAAGCTTCGGGAGTTAGAAC
CGGGACAAAAATCATCATCCACCTGAAATCCGACTGCAAGGAGTTTTCCAGCGAGGCCCGGGTGCAGATGTGGT
AACGAAGTACAGCAACTTCGTAGCTTCCCCTTGTTACTTGAATGGAAGGCGGATGAACACCTTGAGGCCATCTG
GATGATGGACCCCAAGGATGTCTGGTGAAGTGGCAACATGAGGAGTTCTACCGCTACGTGCGCGAGGCTCAGGACAA
GCCCCGCTACACCTGCACTATAAGACGGACGCACCGCTCAACATCCGCAGCATCTTCTACGTGCCCCGACATGAA
ACCGTCCATGTTTGATGTGAGCCGGGAGCTGGGCTCCAGCGTTGCACTGTACAGCCGCAAAGTCCTCATCCAGAC
CAAGGCCACGGACATCTGCCCCAAGTGGCTGCGCTTCATCCGAGGTGTGGTGGACAGTGAGGACATTCCCCTGAA
CCTCAGCCGGGAGCTGCTGCAGGAGAGCGCACTCATCAGGAAACTCCGGGACGTTTTACAGCAGAGGCTGATCAA
ATTCTTCATTGACCAGAGTAAAAAAGATGCTGAGAAGTATGCAAAGTTTTTTGAAGATTACGGCCTGTTCATGCG
GGAGGGCATTGTGACCGCCACCGAGCAGGAGGTCAAGGAGGACATAGCAAAGCTGCTGCGCTACGAGTCCCTCGGC
GCTGCCCTCCGGGCAGCTAACCAGCCTCTCAGAATACGCCAGCCGATGCGGGCCGGCACCCGCAACATCTACTA
CCTGTGCGCCCCCAACCGTCACCTGGCAGAGCACTCACCTACTATGAGGCCATGAAGAAGAAAGACACAGAGGT
TCTCTTCTGCTTTGAGCAGTTTGATGAGCTCACCTGCTGCACCTTCGTGAGTTTGACAAGAAGAAGCTGATCTC
TGTGGAGACGGACATAGTCGTGGATCACTACAAGGAGGAGAAGTTTGAGGACAGGTCCCCAGCCGCCGAGTGCCT
ATCAGAGAAGGAGACGGAGGAGCTCATGGCCTGGATGAGAAATGTGCTGGGGTTCGCGTGTACCAACGTGAAGT
GACCTCCGACTGGACACCCACCCTGCCATGGTCACCGTGTGGAGATGGGGGCTGCCCGCCACTTCCTGCGCAT
GCAGCAGCTGGCCAAGACCCAGGAGGAGCGCGCACAGCTCCTGCAGCCCACGCTGGAGATCAACCCCAGGCACGC
GCTCATCAAGAAGCTGAATCAGCTGCGCGCAAGCGAGCCTGGCCTGGCTCAGCTGCTGGTGGATCAGATATACGA
GAACGCCATGATTGCTGCTGGACTTGTTGACGACCCTAGGGCCATGGTGGGCGCTTGAATGAGCTGCTTGTCAA
GGCCCTGGAGCGACACTGACAGCCAGGGGGCCAGAAGGACTGACACCACAGATGACAGCCCCACCTCCTTGAGCT
TTATTACCTAAATTTAAAGGTATTTCTTAACCCGAAAAAAAAAAAAAAAAA

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FIGURE 4415

MARELRALLLWGRRLRPLLRAPALAAVPGGKPILCPRRTTAQLGPRRNPAWSLQAGRLFSTQTAEDKEEPLHSII
SSTESVQGSTSKHEFQAETKKLLDIVARSLYSEKEVFIRELISNASDALEKLRHKLVS DGQALPEMEIHLQTNAE
KGTITIQDTGIGMTQEELVSNLGTIARSGSKAFLDALQNQAEASSKII GQFGVGFYSAFMVADRVEVYSRSAAPG
SLGYQWLSDGSGVFEIAEASGVRTGTKII IHLKSDCKEFSSEARVRDVVTKYSNFVSFPLYLNGRRMNTLQAIWM
MDPKDVGEWQHEEFYRYVAQAHDKPRYTLHYKTDAPLNIRSIFYVPDMKPSMFDVSRELGSVALYSRKVLIQTK
ATDILPKWLRFIRGVVDSEDIPLNLSRELLQESALIRKLRDVLQQRLIKFFIDQSKKDAEKYAKFFEDYGLFMRE
GIVTATEQEVKEDIAKLLRYESSALPSGQLTSLSEYASRM RAGTRNIYYLCAPNRHLAEHSPYYEAMKKKDTEVL
FCFEQFDELTLHLREFDKKKLISVETDIVVDHYKEEFEDRSPAAECLSEKETEELMAWMRNVLGSRVTNVKVT
LRLDTHPAMVTVLEMGAARHFLRMQQLAKTQEERAQLLOPTLEINPRHALIKKLNQLRASEPGLAQLLDQIYEN
AMIAAGLVDDPRAMVGRLNELLVKALERH

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FIGURE 4416

CGGAATGGAGGAGGTGCCTCACGACTGTCCAGGGGCCGACAGCGCCCAGGCGGGCAGAGGGGCTTCATGTCAGGG
ATGCCCCAACCAGCGGCTGTGCGCTTCTGGAGCGGGGGCCACTCCGGACACGGCTATAGAGGAAATCAAAGAGAA
AATGAAGACTGTAAACACAAAATCTTGGTATTGTCTGGGAAAGGCGGTGTTGGGAAAAGCACATTACAGCGCCCA
CCTTGCCCATGGCCTAGCAGAGGATGAAAACACACAGATTGCTCTTCTAGACATCGATATATGTGGGCCATCGAT
TCCCAAGATAATGGGATTGGAAGGAGAGCAGGTTACCCAGAGTGGCTCAGGCTGGTCTCCAGTGTACGTGGAAGA
CAACCTGGGGGTGATGTCAGTGGGCTTCCTGCTCAGCAGTCCTGATGATGCTGTTATCTGGAGGGGACCCAAAGAA
AAACGGCATGATCAAGCAGTTCCTCCGAGATGTGGACTGGGGAGAGGTGCGACTACCTCATTGTGGACACCCACC
TGGGACGTCGGATGAACACCTCTCGGTCGTCCGGTACCTGGCCACAGCACACATCGATGGAGCAGTGATCATCAC
CACTCCCCAGGAGCTGTCACTCCAGGATGTCCGAAAGAAATCAACTTCTGCCGCAAGGTGAAGCTGCCCATCAT
CGGGGTGGTGGAGAACATGAGTCCGTTTCATCTGTCCTAAGTGCAAGAAAGAATCTCAGATATTCCCTCCCAAC
CGGGGGCGCGGAGCTCATGTGCCAGGACTTGAGGTTCCCTCTCCTCGGCAGAGTGCCCTGGATCCGCTCATAGG
TAAGAATTGTGACAAAGGCCAGTCTTTTTTCATTGACGCCCCAGATTCCCCAGCCACGTTAGCCTACAGAAGTAT
AATTCAGAGAATCCAAGAGTTTTGTAACTCCATCAGTCAAAAGAAGAGAACCTCATCAGTTCCTGAACGAGAG
AATGTTCAGGACCAAGCAGTTACCGAGCGAGGCACTCACTGGGCAGCACATCCAGCCAGACCCGACCAGCTCCGG
GATGGGGTGGGTCACAGCAAAAGGACCAGATGCTGGTGTGGTCCGAAGCCACTTCTCAGAGACACTTTAATCAT
TGAGTATTTGTACACTTTTCTTTAGAACATATATAAAGGGCATTCTCTACAAATGTGCCGTTTTAAGAATAAAAC
CCCCTCAAATCTC

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FIGURE 4417

MEEVPHDCPGADSAQAGRGASCQGCPNQRLCASGAGATPDTAIEEIKEKMKTVKHKILVLSGKGGVGKSTFSAHL
AHGLAEDENTQIALLDIDICGPSIPKIMGLEGEQVHQSGSGWSPVYVEDNLGVMSVGFLSSPDDAVIWRGPKKN
GMIKQFLRDVDWGEVDYLIVDTPPGTSDEHLSVVRYLATAHIDGAVIITTPQELSLQDVRKEINFCRKVKLP IIG
VVENMSPFICPKCKKESQIFPPTTGGAELMCQDLEVPLLRVPLDPLIGKNCDKGQSEFFIDAPDSPATLAYRSII
QRIQEFCNLHQSKEENLISS

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FIGURE 4418

CGGTCCTTCTCAACAGGCCTGTGCCCCGCGGGGTCCGCCTCCTCTGGGACGCCTTCCTCCCGGCACAGAAGGCCT
CCCCCTCTCACCAGGGCCCTCGCCCGCTGGTCCGCCAGGCCCGCCCTTTTTTGCGGCCCCCATTGTGCTGCTGGA
CCCGACGAGCAGTGTTGACAGTGAACCCACGTAGACGCGGCCCGGTACCGGGGGTTCAGGCAGTAGAGCAGGT
AGACGCCGAAAAAGCGCCCTGGCCTCGCCGCGACCCCGCGGGACCCATCGGGCCTTGGGGTTCGGGAACACAG
CAGGGGGTTGATTGCCGTGACCTAGGGTCCAGGGGAGGGCTGGATCGCTAGGGCTGCAGGGTGCTTGCTTCGGAA
CAAGCTCTCGGGGACTATCCGGAGGCAGCCTGCAGGAAGCCGTAGCGCCGGTACGTGCCCCCTCTCCTGTCTGGAG
GCGGGTGTAGAAGTCCGACCGCGGAAGCCAGACTGCTGTCCAGTCGGCGAGCGCGTACCATTACGCATCGGCTCC
GCCCAGTCCCACCTTCCTCAGGCTCTGATTGGCTGACACATGGCAAGCGCGAAAAGCCTGGACCGCTGGAAAGC
CCGGCTGCTTGAGGGCGGAAGTACTGCGTTGACGTACGCCTTAGTAAGGGCGGAAGTGAGTTTCCAGCGGAAGT
GGCTCCTGTAAGGCAGCAAGGTAGCGTGGCCGGCGCCGAGCTGGGGTTGTGTCCCTGCTGGGCTGCCGTTCCAG
CTGGACTGCCGCCATCGAACTCAGCGCCGAATACCTCCGCGAGAAGCTGCAGCGGGACCTGGAGGCGGAGCATGT
GGAGGTGGAGGACACGACCCTCAACCGTTGCTCCTGTAGCTTCCGAGTCCTGGTGGTGTCCGCCAAGTTCGAGGG
GAAACCGCTGCTTCAGAGACACAGGCTGGTGAACGCGTGCCTAGCAGAAGAGCTCCCGCACATCCATGCCTTTGA
ACAGAAAACCTGACCCAGACAGTGGGCACGTGAGCGACAGAAATGAGGGACTGGGATCTGCACAGCCATTAA
ATTATAAATCTGGACCAGCTTCTGTGTGATGTGTGTGTGGGAGGGGTGCTGAGGCCGAGTCTAGGACCTGGCCT
CTCCCTGCCCTGCCTCCGTCCATTGTTTTTA

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FIGURE 4419

MELSAEYLREKLQRDLEAEHVEVEDTTLNRCSCSFRVLVVS AKFEGKPLLQRHRLVNACLA EELPHIHAF EQKTL
TPDQWARERQK

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FIGURE 4420

GGTAACTTCTTGATGTTGCCGTGGCATTGTGAACTGTGCATGGTGCTGGTAGGAGTGTAGCAGGGAGGATGATGG
GAGGTCAGTCTTGCTCTATTTTGGTTTTGGTGGGTTTTGGCCAGCTCCTTCACTGCAACCTGTTTTATCAGCAA
GGTCTTTATGACTGGTATTTTGTGCTGACCTTCTATGTCATCCTGTGACTTAGAATGCCTTAACCATCAGGGAAT
GCAGCCCAGTAGTTTCAGCCTCATTTTTCCTGGCTCCTATTTAAGATGGAGTTGCTCTGGTTCACACACCTCTGA
CATGATCATTGCCCACGTGCGGCTTCCACCTCCCGGGTTCAAGAGATCCTCCTGCCTCACCTCCCAAGGTGCTGG
GACTACAGGTGTGTGCCACCACGCTCAGCTAATTTTGTATTTTTTGTAGAGATGGTGTTTTTCCATGTTGCCCA
GGCTGGTCTCAAACCTCCTGGGCTCAAGCAATCCTTCTGTCTCAGCCTCCCAAAGTACTGGGATTACAGGCATGTC
CCACCATGCCCAGACTAATATTTACTTTTAATCAGACTAAGATAGGGTTACTACTTGAGTTGCTATGGCTCCAGC
TGAAAGAAAGCCCGTGTCAGTCATATCACGCGTAAACATTTGCTTTATGCTAAAAATATGGTGAGCTGGCATTAC
AGCTATTACAAATCTCCTAAGATGTCTCGGGTAGTGATTAGTTACTTTTCATACTGCTATGAAGAAATACTGGA
AACTGGGTAAATTTATAAAGAAAAAGAGTTTAATGTACTCACAGTTCCACAAGGCTGGAGAGGCTCAGAATCAT
GGTGGAAGGCAAGGAGCAAAAAGGTATGTCTTCCATGGCAGCAGGCAAGAGAGCACGTGCAGGGAACTGCCCTT
TATAAAACCATCAGATTTAGTGAGATGTATTCATATCACGAGAACAGTATGGGAAAAACCTGCCCCCATGATTC
GATTACCTCCTACCGGGTCCCTCCACGACACATGGGGATTATGGGAACATAAATTCAAGATGAAATTTGGGTGG
GGACGCAGCCAAACCATATCGGGTAGCAACAACCTAGGGTCAGTTTTGCAGGTGGTAAAGCCATTTACCAAGATA
GTTGTAGGTAAAGAAGGGCAGATTTATTAGAGAAATTGTGAAAATATGTTGCAGTGGGCAGCTCAGCAGAGAAGG
GGCTACCTGCAAAGAGGCAAGGGCTGGAGGAAAGTTTTATAGGGTCCTGCTGAAGGGTGCTACGTGTGGAATGAG
GTCATTGTGCCCCGAGGTTGTTTGTGATTAGCTGTTTCTAACAATTGTTCAACAATAATTGTTTCATTATTGTTT
TCAACTTGGGGCTCTCCCCAACCTGGGGACCTTCCTTATTGTTGCTTACTTATCAGGTCTCCACATAAAGGTGT
GGAAACTTCATTTCATTATATCTTCAACACAAATTGTAGGTAGCCTGTTTTTTAAACATTTATTCAACAAATAT
TTAGTCCAAGCCACTATTACTTATTACCTTCTCTACTATTGTATGGACTTTTAACTATCTCTGACACTATTCACT
ATTCTTCCACATTCTCTATTATTTATACCTATGGTAAATTTGCCAGTTTGACCATACAACTAATACTCACAGGG
AATATATAGAGTCTAGAAGAAATATACAGGTCCTTAAAGGCTGCCCTGCCAACAAAACCATAACGCAGGAACAA
ACATCACAACTATGCCAAATAATCAATCCTACAATGTCCAAATTTTACTTTAAACTGGAATTTCCAGACTTCC
TTTCTGCATTAACCAGTTTAACTAGACAGTAACGAAATATTCCTACTTTATGCTGTGATAGTTTGTATTATTATT
TATTTATTTATTTATTTATTTGAGACAGAGTTTCGCTCTTGTGTCAGTGAGCCAGGATCATGCCATTGCACTCCA
GCCTGGTCAACGGAGCGAGACTCCGCCTCATTAAAAA

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FIGURE 4421

ATCTTGCTTTCCTTTAATCCGGCAGTGACCGTGTGTCAGAACAAATCTTGAATCATGAAGCTACTAACCAGAGCCG
GCTCTTTCTCGAGATTTTATTCCCTCAAAGTTGCCCCCAAAGTTAAAGCCACAGCTGCGCCTGCAGGAGCACGGC
CACAACTCAGGACCTTGAGTTTACCAAGTTACCAAATGGCTTGGTGATTGCTTCTTTGGAAAATATTCTCCTG
TATCAAGAATTGGTTTGTTCATTAAAGCAGGCAGTAGATATGAGGACTTCAGCAATTTAGGAACCAACCATTTGC
TGCGTCTTACATCCAGTCTGACGACAAAAGGAGCTTCATCTTTCAAGATAACCCGTGGAATTGAAGCAGTTGGTG
GCAAATTAAGTGTGACCGCAACAAGGGAAAACATGGCTTATACTGTGGAATGCCTGCGGGGTGATGTTGATATT
TAATGGAGTTTCTGCTCAATGTCAACACAGCACCAGAATTCGTCGTTGGGAAGTAGCTGACCTTCAGCCTCAGC
TAAAGATTGACAAAGCTGTGGCCTTTTCAAGATCCGCAGACTCATGTCATTGAAAATTTGCATGCAGCAGCTTACC
AGAATGCCTTGGCTAATCCCTTGTATTGTCTGACTATAGGATTGGAAAAGTGACATCAGAGGAGTTACATTACT
TCGTTTCAAGAACATTTTCAAGTGAAGAATGGCTTTGATTGGACTTGGTGTGAGTCATCCTGTTCTAAAGCAAG
TTGCTGAACAGTTTCTCAACATGAGGGGTGGGCTTGGTTTATCTGGTGCAAAGGCCAACTACCGTGGAGGTGAAA
TCCGAGAACAGAAATGGAGACAGTCTTGTCCATGCTGCTTTTGTAGCAGAAAGTGCTGTGCGGGGAAGTGACAGAGG
CAAATGCATTTAGTGTTCTTTCAGCATGTCTCGGTGCTGGGCCACATGTCAAGAGGGGCAGCAACACCACCAGCC
ATCTGCACCAGGCTGTTGCCAAGGCAACTCAGCAGCCATTTGATGTTTCTGCATTTAATGCCAGTTACTCAGATT
CTGGACTCTTTGGGATTTATACTATCTCCAGGCCACAGCTGCTGGAGATGTTATCAAGGCTGCCTATAATCAAG
TAAAAAGAATAGCTCAAGGAAACCTTTCCAACACAGATGTCCAAGCTGCCAAGAACAAGCTGAAAGCTGGATACC
TAATGTCAAGTGGAGTCTTCTGAGTGTTTCTTGGGAAGAAGTCGGGTCCCAGGCTCTAGTTGCTGGTTCTTACATGC
CACCATCCACAGTCTTTCAGCAGATTGATTCAAGTGGCTAATGCTGATATCATAAATGCGGCAAAGAAGTTTGT
CTGGCCAGAAGTCAATGGCAGCAAGTGGAAATTTGGGACATACACCTTTTGTGATGAGTTGTAATACTGATGCA
CACATTACAGGAGAGAGCTGAACGTTCTCTCACCAGAGCAGCAAAACACATGAAAGTCAGAAGTCTCTAATATAT
CATTTGCTTTTTTCCAGTGAGGTAAAATAAGGCATAAATGCAGGTAATTATTTCCAGCTGACCTAAAGTCAATA
AAACATTCTGTTT

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FIGURE 4422

MKLLTRAGSF SRFYSLKVAPKVKATAAPAGAPPQPQDLEFTKLPNGLVIASLENYSPVSRIGLFIKAGSRYEDFS
NLGTTHLLRLTSSLTTKGASSFKITRGIEAVGGKLSVTATRENMAYTVECLRGDVDILMEFLNVTTAPEFRWE
VADLQPQLKIDKAVAFQNPQTHVIENLHAAAYQNALANPLYCPDYRIGKVTSEELHYFVQNHFTSARMALIGLV
SHPVLKQVAEQFLNMRGGLGLSGAKANYRGGEIREQNGDSLHAAFVAESAVAGSAEANAFSVLQHVLGAGPHVK
RGSNTTSHLHQAVAKATQPPFDVSAFNASYSDSGLFGIYTISQATAAGDVIKAAYNQVKRIAQGNLSNTDVQAAK
NKLKAGYLMSVESSECFLEEVGSQALVAGSYMPPSTVLQQIDSVANADIINAACKFVSGQKSMAASGNLGHTPFV
DEL

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FIGURE 4423

AGTCCTCTTCCGGGTGATGGCGGCGGGTGCCCCGGATGTAGCCCTGGCGCAAGCATCTCTCTTTTTTCCACCTC
GCCTTCCGCGGATTCCCAGCTTGAGAAACACCTCTTTGCCCCGTCTGCCCCAAAGAGGAAAGTGACCTTCCAAGGC
GTGGGAGATGAGGAGGATGAGGATGAAATCATTGTCCCCAAGAAGAAGCTGGTGGACCCCTGTGGCTGGGGTCAGGG
GGTCCTGGGAGCCGCTTTAAAGGCAAACACTCTTTGGATAGCGATGAGGAGGAGGATGATGATGATGGGGGGTCC
AGCAAATATGACATCTTGGCCTCAGAGGATGTAGAAGGTCAGGAGGCAGCCACACTCCCCAGCGAGGGGGGTGTT
CGGATCACACCCTTTAACCTGCAGGAGGAGATGGAGGAAGGCCACTTTGATGCCGATGGCAACTACTTCCTGAAC
CGGGATGCTCAGATCCGAGACAGCTGGCTGGACAACATTGACTGGGTGAAGATCCGGGAGCGGCCACCTGGCCAG
CGCCAGGCCTCAGACTCGGAGGAGGAGGACAGCTTGGGCCAGACCTCAATGAGTGCCCAAGCCCTCTTGGAGGGA
CTTTTGGAGCTCCTATTGCCTAGAGAGACAGTGGCTGGGGCACTGAGGCGTCTGGGGGCCCCGAGGAGGAGGCAAA
GGGAGAAAGGGGCTGGGCAACCCAGTTCCCCTCAGCGCTGGACCGGCTCTCCGGGTTGGCCGACCAGATGGTG
GCCCCGGGCAACCTTGGTGTGTACCAGGAAACAAGGGAACGGTTGGCTATGCGTCTGAAGGGTTTGGGGTGTGAG
ACCCTAGGACCCCAATCCACACCCCCACCCTCCCTGGACATGTTGCTGAGGAGTTGGCGGAGGAGGAACTG
GAGACCCCAACCCCTACCCAGAGAGGAGAAGCAGAGTCGCGGGGAGATGGTCTGGTGGATGTGATGTGGGAATAT
AAGTGGGAGAACACGGGGGATGCCGAGCTGTATGGGCCCTTACCAGCGCCAGATGCAGACCTGGGTGAGTGAA
GGCTACTTCCCGGACGGTGTATTGCGGGAAGCTGGACCCCCCTGGTGGTCAGTTCTACAACCTCAAACGCATT
GACTTTGACCTCTACACCTGAGCCCTGCTGGGGGCCCCAGTTTGGTGGGCCCTTCTTCTGACTTTGTGGAGGAG
GCACCAAGTGTCTCAGGCAGCGAGGAAATTGGAGGCCATTTTTCAGTCAATTTCCCTTTCCCAATAAAAGCCTTT
AGTTGTGTAAAAA

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FIGURE 4424

MPKRKVTFGVGDEEDEDEIIIVPKKKLVDPVAGSGGPGSRFKGKHSLSDEEEDDDDGSSSKYDILASEDVEGQE
AATLPSEGGVRITPFNLQEEMEEGHFDADGNYFLNRDAQIRDSWLDNIDWVKIRERPPGQRQASDSEEDSLGQT
SMSAQALLEGLLELLLPRETVAGALRRLGARGGGKGRKGPGQPSSPQRDLRLSGLADQMVARGNLGVYQETRERL
AMRLKGLGCQTLGPHNPTPPPSLDMFAEELAEELTPPTPTQGEAESRGDGLVDVMWEYKWENTGDAELYGPFT
SAQMOTWVSEGYFPDGVYCRKLDPPGGGFYNSKRIDFDLYT

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FIGURE 4425

AAACAGGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTT
TGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAAGATTTCGTGATGTCACCAAGTGCCTGGAAGA
GTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGTGGACAAAAGAAGGTGTCCCCCGGTTCTATAT
CCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAA
GAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCAC
AAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGAGAAAAATGAGGAGGATTGAGAAGGCTCTTC
AGATGAGGATGAGGATGAGGACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGA
GAGTCGCAAGTTCTTCAAAAAGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGA
CACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGGGAAAACAAACCGCGCTGGCCTCAAGATTTCT
TAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCA
CGACAGGAAATCCAAGCGCTGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCCGGGGCGG
AGTGCCGTTGGTTAAGGAGAAGCCAAAATGTTTGCCAAGGGAACTGAGATCACCCATGCTGTTGTTATCAAGAA
ACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACTGATCGTGCTGCCCAGATTGAGCTGCTGCAACTGCT
GGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCT
CTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGA
GCTGATGGATATCCTGTTTGCAAATCCCAACATTTTGTGGAGAGAATATTCTGGAAGAGAGTGAGAACCTGCA
CAACGCTGACCAGCCACTGCGTGTCGTTGGTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTTACCAA
AATAATGCAAAATACTGACCCTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCAGGTGTGTGCCAT
CATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCAT
CCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACAGCTGACCCGCGCTGAGGGCTCCTCAAAGGT
GAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGTTGATGGAGAGACTGTGCAAGTACATCTACGCC
AAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGC

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FIGURE 4426

GGCCCTGCGGTGTGACTCGCGGGCTCAGCTGGTTGGTATTTTTTGGGCCTCGTGCTTCGTGGTGGGAGACCCAGG
TCGAGGTCCGGCCGTAGCACCTCCGCGCCGTCGCCATGTCGCGGTTTTTCACCACCGGTTCCGGACAGCGAGTCCG
AGTCGTCTTGTCCGGGGAGGAGCTCGTCACCAACCTGTTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGA
GCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTA
TCCGGACCATCCGTAATGCCATGAAGATTTCGTGATGTCACCAAGTGCCCTGGAAGAGTTTGAGCTCCTGGGAAAAG
CATATGGGAAGGCCAAAAGCATTGTGGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAG
AGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGA
GCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCG
AGCAGTCTGCGGATGAAGATGCTGAGAAAATGAGGAGGATTGAGAAGGCTCTTCAGATGAGGATGAGGATGAGG
ACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCTCTCAAAA
AGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCG
ATTCCGACTCAGAGGAGGAAGAAGGGAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAG
ATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCAGCAGAGGAAATCCAAGCGCC
TGGATGAGGAGGAGGAGGACAATGAAGCGGGGAGTGGGAAAGGGTCTGGGGCGGAGTGCCGTTGGTTAAGGAGA
AGCCAAAAATGTTTGCCAAGGGAAC TGAGATCACCCTGCTGTTGTTATCAAGAACTGAATGAGATCCTACAGG
CAGGAGGCAAGAAGGGAAC TGATCGTGCTGCCAGATTGAGCTGCTGCAACTGCTGGTTGAGATTGCAGCGGAAA
ACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACC
TGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTG
CAATCCCAACATTTTTTGTGGAGAGAATATTCTGGAAGAGAGTGAAGAATTACCAAAATAATGCAAAATACTGACC
GTGTCCGTGGCTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTACCAAAATAATGCAAAATACTGACC
CTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCT
ACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGT
TTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAA
ATGAGGGCGAGGACTCGGCTGTGTTGATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGA
TCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCGCGACCTCA
TGCTCATGAGCCACTTGACAGACAACATTGAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATTGG
TGCAGCTGGGCATCTGTGCCTTCCGCCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCTGA
GTGGCCGAGCCAAGGAGCTTCTGGGCCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGA
AGGTGGAGCGGCGCCGTGAGGTCCCCTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGT
CTGCCATGCTCCTGGAGATCCCCTACATGGCCGCCCATGAGAGCGATGCCCCGCCGACGCATGATCAGCAAGCAGT
TCCACCACCAGCTGCGCGTGGGCGAGCGACAGCCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTGC
CTGCCTCCAAGGCCATGAAGATGGGTGACTGGAAGACCTGTCACAGTTTTATCATCAATGAGAAGATGAATGGGA
AAGTGTGGGACCTTTTCCCGAGGCTGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGA
GGACCTACCTCTTACCTACAGCAGTGTCTATGACTCCATCAGCATGGAGACGCTGTCAGACATGTTTGAGCTGG
ATCTGCCCCTGTGCACTCCATCATCAGCAAAATGATCATTAAATGAGGAGCTGATGGCTCCCTGGACCAGCCAA
CACAGACAGTGGTGTATGCACCGCACTGAGCCCACTGCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGG
GCAGCCTGGTGGAGAACAACGAACGGGTGTTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGA
AGGACGGCTACCGCAAAAACGAGGGCTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACT
GAGCTCTCCACTCTGTTTCCCGCCTGGGCCATCCAACCTTGAAGTCTTAAACCACACCTCAGTCACTAAAGGTCT
GTTTAAAGTTGTTCTGGTTGATTGCTTGTGTCACAAAGGTGTGTTGAGCCATTCAATTTGCTGATTATATTCT
GAGCTGCTACCACATGACAGACACAAGGCTCAGATGAAGAGGTGAATTGAACACGTTCTTGACCTC

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FIGURE 4427A

AGAGGAGCTTCTTAATAACTTTGCCAGCAAATAGGAGCCTGGAGATTCTGCCTGTACTTTCTCTCCAGCACTAG
GAATGACTATGTAATGATGTACAGTTTAAACAGTTTTTGAGAATCTGATCAATAAAATGTGGCTTGGGGTCCCATC
TCAGGATAAGATGGAAATCCGTAGCTGTCTGCCAAACTCCTTTTGGCTCACCATAAAACCTTACCTTACTTTAT
CCGGAACAAGCTCTGCAAAGTTATTGTTGATATTGGACGTCAGGATTGGCCCATGTTCTACCACGACTTTTTTAC
TAACATTTTACAGTTGATCCAGTCCCCTGTGACAACCCCCCTTGGGCTGATCATGTTGAAGACAACCTCAGAAGA
GCTGGCTTGTCCCCGTGAGGACCTCAGTGTGGCTCGGAAGGAGGAGTTGCGGAAGCTGCTACTGGACCAGGTGCA
GACAGTGCTTGGGCTACTGACAGGTATCTTGGAGACTGTCTGGGACAAACACAGTGTTACTGCTGCCACTCCACC
ACCATCCCCGACCTCAGGAGAAAGTGGTGACTTACTGAGTAACCTGTTGCAGAGTCCCAGTTCAGCCAAACTGTT
GAATCAGCCAATTCCCATCCTTGATGTGGAGAGTGAGTATATCTGTTCCCTGGCTTTGGAGTGCTGGCCCATCT
CTTCAGTTGGATTCTCTGTCTGCCAGCATACCCCCATCCCTCCTTACCACCATCTTCCACTTTGCACGATTGG
CTGTGACATCCGGGCCAGAAAGATGGCGTCAGTTAACGGCAGCAGCCAGAAGCTGTGTCTCGGGTCAGGAGCGCGG
CCGGCTGGGGGTCTTGGCCATGTCTGTCATCAATGAACCTCATGTCCAAGAAGCTGTGTGCCTATGGAATTTGAGGA
GTATTTACTGCGTATGTTCCAGCAGACTTTCTACCTCCTGCAGAAAATCACCAGGATAACAATGCCACACAGT
GAAGAGCAGGCTAGAAGAGCTCGATGAGAGCTATATCGAGAAGTTTACTGACTTTCTTCGGCTCTTTGTGAGTGT
TCACCTAAGAAGAATCGAGTCTTACTCCCAGTTCCTGTGGTGGAGTTTTTGACACTTTTGTTCAGTACACATT
TCATCAGCCTACTCATGAAGGTTACTTCTCTTGTGTTGGATATCTGGACGCTGTTTTTGGACTATCTGACAAGTAA
AATTAAGTGCCTTCTGGAGACAAGGAAGCAGTTCTCAACAGGTACGAAGATGCCCTGGTGTCTCTGCTCACAGA
GGTGTGGAATCGAATCCAGTTCAGATACAACCAAGCCAGCTGGAGGAGTTGGATGATGAGACTCTGGATGACGA
TCAGCAGACGGAGTGGCAGCGGTACTTACGGCAGAGCTTGGAGGTGGTGGCCAAAGTGATGGAGCTCTGCCAC
GCACGCTTCTCCACACTGTTCCCTGTTCTTCAGGACAATTTAGAAGTTTATTTGGGATTACAACAGTTTATAGT
CACTTCAGGGTCAGGACACAGGTTGAACATCACGGCGGAGAACGACTGCCGGCGGCTGCCTCCCTGAGAGA
CTTGAGCTCCCTGCTGCAGGCCGTGGGCCGCTGGCCGAGTACTTTATCGGGGATGTGTTGCTGCACGGTTCAA
TGATGCCCTCACAGTCGTGGAAAGGTTGGTCAAAGTCACTCTGTACGGATCTCAGATAAAATTGTACAACATTGA
AACTGCTGTGCCATCAGTATTGAAACCTGACCTCATGTATGTGATGCTCAGTCCCTGGCTGCGCTGCAGGCTTA
CTCTCACTGGTTAGCACAGTATTGCAGTGAAGTTACCGGCAGAACACGCAGCAGTTCGTGACACTCATCTCTAC
TACCATGGATGCAATCACACCTCTAATCAGCACCAGGTCCAAGACAAGCTGCTGCTATCTGCGTGCCACTTACT
GGTCTCACTGGCCACCACCGTGCGGCCCGTCTTTCTGATCAGCATCCCTGCAGTGCGAGAAAGTATTCAACAGAAT
CACTGATGCCTTGCCCTGCGACTTGTGCGATAAGGCCAGGTGTTGGTGTGCCGAGCCCTCTCTAACATCTTGCT
GCTTCCGTGCCCAAACCTTCCAGAGAATGAGCAGCAGTGGCCCGTGCGCTCCATCAACCACGCCAGCCTCATCTC
TGCACTCTCCCGGGACTATCGCAACCTGAAGCCAGTGCTGTTGCCCCACAGAGAAAGATGCCACTGGATGACAC
CAAAC TGATTATCCACCAGACACTCAGCGTCTTAGAAGATATTGTGGAGAATATCTCGGGGGAGTCCACCAAGTC
TCGACAGATTGCTACCAGTCGCTGCAGGAATCTGTTACAGTCTCCCTGGCCCTCTTTCCAGCTTTTATCCATCA
GTCAGATGTGACTGATGAGATGCTGAGCTTCTTCTCACTCTGTTTCGAGGCCTTAGAGTACAGATGGGTGTGCC
TTTCACTGAGCAAATCATAACAGACTTTCTCAACATGTTTACCAGAGAGCAGTTAGCCGAGAGCATCCTCCACGA
GGGCAGCACAGGCTGCCGGGTGGTGGAGAAGTTCTGAAGATCCTGCAGGTGGTGGTCCAGGAGCCAGGCCAGGT
GTTCAAGCCCTTCTCCCCAGCATCATCGCCCTGTGCATGGAGCAAGTGTATCCCATCATTGCCGAGCGTCCCTC
CCCTGATGTGAAGGCCGAGCTGTTTGAGCTCCTTTTCCGACGCTCCATCACAAGTGGAGGTACTTCTTCAAGTC
CACCGTGCTGGCCAGTGTCAGAGGGGGATCGCTGAGGAGCAGATGGAGAATGAGCCCCAGTTCAGTGCCATCAT
GCAGGCTTTCCGGACAGTCTTTCTCCAGCCCCGACATCCACCTTTTTAAACAAAATCTCTTCTACTTGGAGACTCT
CAACACCAAGCAGAAGCTGTACCACAAGAAGATCTTCCGACTGCCATGCTGTTCCAGTTTGTGAACGTGCTGCT
CCAGGTCTGGTCCACAAGTCCCATGATCTTCTGCAGGAGGAGATTGGCATCGCCATCTACAACATGGCCTCAGT
CGACTTTGATGGCTTCTTTGCCGCCCTTCTCCAGAGTTCCTGACCAGCTGTGATGGTGTGGATGCCAACAGAA
AAGTGTGCTGGGGCGGAATTTCAAGATGGATCGGGACCTGCCCTCATTACCCAGAATGTGCACAGGCTGGTCAA
CGACCTGCGCTACTACAGACTCTGCAACGACAGCCTGCCCCCTGGCACTGTGAAGCTCTAGGCCTGCTACTGCCT
GGGGACACGGACTTCTGCTGCTGCCACCTGCGCCAGCCCTACCTTCCACCACAGATGTCTCCAGATGGGCCTTG
GTCACACTCCTTGGCTTCTCCACCGCAAGCAACGCTGCCTGCCTCTGCCGCTCCTCCACATCTTGCCGCTGCC
AGCAGAGCTGGCTTCTGGGTCCACCTGAGCACTGGACGGTGCTCCAGGGCGTTGGAGCAGGCGGAGGGGTGTGT
GGCCAGGTACTAGGAGGCACCAGGAAATCCCGCGGGGTGGCCCATGCAGACCAGGCGCACGTGGCTCATGGGGCA

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FIGURE 4427B

GAATTGCCAAGGACAGCTCACGACAGTGCCACCTTCTCACCATTCCAGCCAAGGAGAGATGTGACGTTGGAAGT
CTCTGGCACTTCTGTCAAGCCTCCCCCGCCCCAATTGCCTTGAGATCTCTGCTCTTTGTCAGAGATTTGCAAAGA
CTCACGTTTTTGTGTGTTTTCTCATCATTCCATTGTGATACTAAGAACTAAGAAGCTTAATGAAAAGAAATAAAA
TGCCTATGTTGTTGTTCTAG

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FIGURE 4428

MMYSLTVFENLINKMWLGVP SQDKMEIRSCLPKLLLAHHKTLPHYFIRNKLCKVIVDIGRQDWPMFYHDFFTNILQ
LIQSPVTTPLGLIMLKTSEELACPREDLSVARKEELRKLLLDQVQTVLGLLTGILETVWDKHSVTAATPPPSPT
SGESGDLLSNLLQSPSSAKLLNQPIPIILDVESEYICSLALECLAHLFSWIPLSASITPSLLTTIFHFARFGCDIR
ARKMASVNGSSQNCVSGQERGRGLGVLAMSCINELMSKNCVPMEFEEYLLRMFQQTFFYLLQKITKDNNHTVKSRL
EELDESYIEKFTDFLRFLFVSVHLRRIESYSQFPVVEFTLLFKYTFHQPTHEGYFSCLDIWTLFLDYLTSKIISR
LGDKEAVLNRYEDALVLLLTEVLNRIQFRYNQAQLEELDDDETLDQDQTEWQRYLRQSLEVVAKVMELLPTHAFS
TLFPVLQDNLEVYLGLOQFIVTSGSGHRLNITAENDCRLHCSLRDLSSLLQAVGRLAEYFIGDVFAARFNDALT
VVERLVKVTLYGSQIKLYNIETAVPSVLKPDIDVHAQSLAALQAYSHWLAQYCSEVHRQNTQQFVTLISTTMDA
ITPLISTKVQDKLLLSACHLLVSLATTVRPVFLISIPAVQKVFNRTDASALRLVDKAQVLVCRALSNILLPWP
NLPENEQQWPVRSINHASLISALSRDYRNLPKPSAVAPQRKMPDDTKLIHQTLVLEDIVENISGESTKSRQIC
YQSLQESVQVSLALFPAFIHQSDVTDEMLSFFLTFRGLRVQMGVPFTEQIIQTFLNMFTREQLAESILHEGSTG
CRVVEKFLKILQVVVQEPGQVFKPFLPSIIALCMEQVYPIIAERPSPDVKAELFELLFRTLHHNWRYFFKSTVLA
SVQRGIAEEQMENEPQFSAIMQAFGQSFLQPDIIHLFKQNLFYLETNLTQKLYHKKIFRTAMLFQFVNVLQVLV
HKSHDLLQEEIGIAIYNMASVDFDGFFAAFLPEFLTSCDGDANQKSVLGRNFKMDRDLPSFTQNVHRLVNDLRY
YRLCNDLPPGTVKL

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FIGURE 4429

TCTCTCTCGGCGTTTCCGCTGTCAGGGCCTGCGGTGTGACTCGCGGGCTCAGCTGGTCCGGCCGTAGCACCTCCG
CGCCGTCGCCATGTCGCGGTTTTTACCACCGGTTCCGGACAGCGAGTCCGAGTCGTCTTGTCCGGGGAGGAGCT
CGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAG
AGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAA
GATTCTGTATGTCACCAAGTGCCCTGGAAGAGTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGT
GGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGA
AGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAA
ATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGA
GAAAAATGAGGAGGATTGAGAAGGCTCTTCAGATGAGGATGAGGATGAGGACGGAGTCAGTGTCTGCAACTTTCTT
GAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCTCAAAAAGATGGATGATGAAGATGAGGACTC
AGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGG
GAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAA
GAAACGGGAGGACAAAGCTAAGAAGAAGCAGACAGGAAATCCAAGCGCTGGATGAGGAGGAGGAGGACAATGA
AGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGAAGCCAAAATGTTTGCCAAGGGAAC
TGAGATCACCCATGCTGTTGTTATCAAGAACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACCTGATCG
TGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTGAGATTGACGCGGAAAACAACCTGGGAGAGGGCGCTCATTGT
CAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGAT
GTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTGCAAATCCCAACATTTTGTGTGGAGA
GAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGCGTGTCCGTGCTCGCTGCTGCACTCTA
GGTGAACGAATGGATGAAGAATTTACCAAAATATGCAAAATACCTGACCCTCACTCCCAAGAGTACGTGGAGCA
CTTGAAGGATGAGGCCAGGTGTGTGCCATCATGAGCGTGTGACGCGTACCTGGAGGAGAAGGGCACTACCGA
GGAGGTCTGCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACA
GCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGTT
GATGGAGCACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCA
CATCTACCACCATGCTCTGCACTCGCGTGGTACCAGGCCGCGACCTCATGCTCATGAGCCACTTGCAGGACAA
CATTACAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGGTGCAGCTGGGCATCTGTGCCCTCCG
CCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGAGTGGCCGAGCCAAGGAGCTTCTGGG
CCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
CTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGTCTGCCATGCTCCTGGAGATCCCCTA
CATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGTTCCACCACCAGCTGCGCGTGGGCGA
GCGACAGCCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCTGCTGCCATGCTCCTGGAGATCCCCTA
TGACTGGAAGACCTGTACAGTTTTATCATCAATGAGAAGATGAATGGGAAAGTGTGGGACCTTTTCCCCGAGGC
TGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGAGGACCTACCTCTTACCTACAGCAG
TGTCTATGACTCCATCAGCATGGAGACGCTGTGACACATGTTTGAGCTGGATCTGCCCCTGTGCACTCCATCAT
CAGCAAAATGATCATTAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAACACAGACAGTGGTGTGACCCGCAC
TGAGCCCCTGCCCAGCAGAACCTGGCTCTGACGCTGGCCGAGAAGCTGGGCAGCCTGGTGGAGAACAACGAACG
GGTGTGTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGAAGGACGGCTACCGCAAAAACGAGGG
CTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACTGAGCTCTCCACTCTGTTTCCCGCCT
GGGCCATCCAACCTTGAAGTCTAAACCACACCTCAGTCACTAAAGGTCTGTTTAAAGTTGTTCTGTTGATTGC
TTGTTGCCACAAAGGTGTGTTGAGCCATTCAATTTGCTGATTATATTTCTGAGCTGCTACCACATGACAGACACA
AGGCTCAGATGAAGAGGTGAATTGAAC

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FIGURE 4430A

ATGGACCAAGGCCCTTGGCGGTGCGTTGCGCATGCGCCCCGGGCGCCCGGACTGAAGTAGCAATGGACGCGCTG
GAGTCGTTGTTGGACGAAGTCGCTCTGGAGGGGCTCGATGGCCTGTGTCTGCCAGCGCTGTGGAGCCGGCTGGAG
ACGCGAGTGCCGCCCTTCCCGCTGCCTTTGGAACCTGACGACGAGGAGTTTCTCTGGCGGGCCCTCGCCACGCAC
CCGGGCATCAGCTTCTATGAGGAGCCTCGGGAGCGACCCGACCTACAGCTCCAGGACCGGTATGAAGAAATTGAT
TTGGAAACTGGAATTTTGGAGTCTAGGAGGGACCCGGTGGCTTTGGAGGATGTCTACCCCATTCATATGATCTTA
GAGAATAAGGATGGCATCCAGGGCTCATGCCGCTACTTTAAGGAGAGGAAAAACATTACCAATGACATCAGAACC
AAGTCCTTGACGCTCGCTGTACAATGGTGGAAAGCCTTTGACAGGTGGGGGAAGAACTGATCATCGTTGCCTCC
CAAGCCATGCGGTACAGGGCCTTGATAGGCCAGGAGGGGGATCCCGACCTGAAGCTGCCCGACTTCTCCTACTGC
ATCCTGGAACGGCTAGGCCGGTCCAGGTGGCAAGGGGAGCTCCAGCGAGACCTTCACACCACTGCTTTCAAGGTT
GATGCTGGGAAGCTGCACTATCACAGAAAAATTTGAACAAAAACGGGCTGATTACAATGCAGTCCCATGTGATC
CGATTACCCACTGGAGCCCAGCAACACTCAATCCTCCTCTACTGAACCGGTTTCATGTGGACAGGAGGACAAA
TACGACATCCTCATGGAGAAGCTTTCCGGTCATGCTGAGCACACGGACTAACACATAGAGACGCTGGGAAAGCTG
AGGGAAGAGCTGGGGCTGTGCGAAAGGACGTTTAAACGCTCTGTACCAGTATATGCTGAACGCCGGGCTAGCCAAG
GTGGTGTCTCTTCGCTTGCAAGAGATCCACCCTGAATGTGGACCTTGTAAGACAAAGAAAGGGACCGACGTCATG
GTTCCGGTGCCCTCAAGCTGCTGAAGGAATTTAAACGGAATGACCATGATGATGACGAGGACGAGGAGGTTCATCTCC
AAGACAGTGCCCTCAGTGACATTGTGTTGAGCGGGATATGCTCACACAGACCTACGACCTCATTGAGCGCAGA
GGCAGCAAGGAATTTCCCAAGCTGAAATCCGAGTGGCTATGAATGTGGGAAAAGTAGAAGCAAGAATGCTGTGC
CGACTTCTTCAAAGATTCAAAGTTGTCAAGGGATTCTGAAGACGAAGGTCGGCAGCGAACCACCAAGTACATT
TCCTGCGTGTTTGAGAGGAGAGCGACCTAAGCCGGCAGTACCAAAGAGAGAAGGCCCGCAGCGAGCTCTTGACC
ACCGTGAGCCTGGCGTCTATGCAGGAGGAGTCTGCTTCTGCTGAAGGCGAGGACACCTTCTCTGAGTCGGAC
AGTGAGGAGGAGAGGAGCAGCAGCAAGCGGAGAGGCGAGAGGGTCCAGAAAGACACAAGAGCCTCTGCAACCTC
CGCCCAAGACCCAGCCTCATCACTCCACCCCAACCAAGGGTGGGTGGAAAGTTGTAAACCTACACCCATTGAAA
AAGCAGCCGCTCTCTTCCCAGGAGCTGCTGAAGAGAGAGCCTGCCAGAGCCTTGCCAGCAGGGACAGCCTCTTA
GATACCAGCAGCGCTCTCAGAACCAACGTTGCTCTTGTCTCCCACTGTGCGGACAGCAACAGTGGTGACATAGCT
GTGATCGAGGAGGTCCGGATGGAAAACCCAAAGGAGAGTAGCAGTTCCCTGAAGACTGGGAGGCACAGCTCAGGC
CAAGACAAACCACACGAAACTTACCGACTGCTGAAACGCAGGAATCTGATCATAGAAGCTGTACCAATCTTCGC
TTAATCGAGAGTTTATTACGATTGAGAGATGATCATGGATCAGGAGAAGCAGGAAGGCGTGTCACCAAGTGC
TGCAAGAAGTCCATTGTCCGCTTGGTGCGGAACCTGTCTGAGGAAGGTCTCTTGCGATTGTATCGGACCACTGTC
ATTCAAGATGGCATCAAGAAGAAGGTGGATCTGGTGGTGACCCGTCATGGACCAGAACGACCCCTCTAGTGAGA
AGTGCCATCGAGCAGGTCCGCTTCCGGATCTCCAATTCAAGCACAGCCAACAGGGTTAAACTTCCCAGCCTCCA
GTGCCCCAAGGGGAGGCAGAGAAGACAGTCAAGGAAAAGAGGGCCCAAGTGGATCAGGGGACTCTCAGCTGAGT
GCTTCTCTAGATCAGAAAGTGGACGGATGAAAAAAGTGATAATAAAATGGGCATAACCCCGCTTAGAAATTAT
CACCCCATTTAGATTCCCGGACTGGGGCGTTCTCTAGGATTCTGCCCCAAATGCCTCGCCTGCGGGTGGTCCAC
ATGTTTCTGTGGTACCTCATCTACGGGCACCCTGCCAGCAACACCGTGAGAGAAGCCAAGCTTCATCAGTGAACGG
AGAACGATAAAGCAGGAGTCAGGCAGGGCAGGCGTCCGGCCGCTCCTCTGGAAGTGCCTGGGAGGCCTGCTCT
GAAGCCCCATCTAAAGGCAGCCAAGATGGTGTACCTGGGAGGCTGAAGTGGAGCTTGCCACGGAGACAGTGTAT
GTCGACGATGCCTCGTGGATGCGCTACATCCCCCAATCCAGTCCACAGGGACTTCGGCTTTGGCTGGGCTCTC
GTCAGCGACATCCTCCTCTGCCTTCCCCCTCTCCATCTTCATCCAGATTGTGCAAGTCAGCTACAAGGTGGACAAC
CTGGAGGAATTTCTGAACGACCCGCTGAAGAAGCACACGCTGATCCGCTTTCTCCCCAGGCCCATTCGGCAGCAG
CTTCTGTACAAGAGGCGTTACATTTTTTCCGGTGGTGGAGAACCTTCAGAGGCTGTGCTACATGGGGCTGCTACAG
TTTGGTCCCACGGAAAAGTTTTCAGGATAAAGATCAGGTCTTTATCTTCTTGAAGAAGAATGCAGTCATTGTTGAC
ACTACCATCTGCGACCCACATTACAACCTGGCCCCGAGCAGCCGGCCCTTCGAGAGGCGCCTCTATGTCTGAAAC
TCAATGCAGGATGTGGAAAACCTACTGGTTTGACCTGCAGTGCCTCTGCCTCAACACCCCACTAGGCGTGGTGCGC
TGCCCGCGCTCAGGAAGAACAGCAGCACAGACCAGGGCAGCGACGAGGAGGGCAGCCTGCAGAAGGAGCAGGAG
AGCGCCATGGACAAGCACAACTGGAGCGCAAGTGCGCCATGCTGGAGTACACCACTGGAAGCCGTGAGGTGGTG
GATGAAGGCTTGATCCCTGGAGATGGGCTGGGTGCCGACGGGCTCGATTCCAGCTTCTACGGACACCTCAAGCGC
AACTGGATCTGGACCAGCTACATCATCAACCAGGCCAAAAGGAGAACACTGCCGAGAGAATGGACTCACAGTG
AGGCTCCAGACATTTCTGTCCAAGCGCCCAATGCCCTCAGTGCCAGAGGCAACAGCAGGTTGAATATTTGGGGG

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FIGURE 4430B

GAAGCAAGAGTAGGCTCCGAGCTCTGTGCTGGCTGGGAAGAGCAGTTTGAGGTGGACCGAGAGCCCTCGCTGGAC
CGAAACCGGAGAGTGAGGGGTGGGAAAAGCCAGAAGCGGAAGCGGCTGAAGAAGGACCCTGGGAAGAAGATCAAG
AGAAAGAAGAAAGGAGAGTTCCAGGAGAAAAAGCAAAAGGCTGCGCTACCATGATGAAGCCGACCAGAGTGCC
CTGCAGCGGATGACGCGGCTTCGTGTCACTGGTCTATGCAGGAGGATGGGCTGCTTGTGCTGTGCCGATTGCC
AGCAATGTCTCAACACCAAGGTGAAGGGCCCCATTTGTCACTGGCAGGTGGTACGGGACATTTTGCATGCCACG
TTTGAAGAGTCTTTGGATAAAACATCTCATTCCGTTGGACGAAGAGCTCGCTACATAGTCAAAAACCCACAGGCC
TATCTCAACTATAAAGTGTGCCTGGCCGAGGTGTACCAGGATAAAGCACTTGTGGAGATTTCATGAATCGAAGA
GGTGACTATGATGACCCAAAGGTTTGTGCCAACGAGTTTAAAGAATTTGTGGAGAAGCTTAAAGAAAAGTTTCAGT
TCAGCCCTAAGGAATTCTAACCTTGAATCCCAGACACACTCCAGGAGCTGTTCCGCCAGGTACCGAGTTTTGGCA
ATTGGGGATGAAAAGATCAAACCAGGAAAGAGGATGAACCTAACAGCGTGGATGACATCCACTTCTGTTGCTT
CAGAACCTGATCCAGAGCAGCTGGCCCTCTCAGACAGTCAGATGAAGTCTACAGTCATTCCAGACTTTCCGC
CTCTATCGGGAGTACAAGGACCACGTTCTTGTGAAGGCCTTCATGGAGTGCCAGAAGAGGAGCTTGGTCAACCGG
CGCCGGGTCAACCACACGCTGGGCCCAAGAAGAACCGGGCCCTCCCTTCGTGCCAATGTCTCTACAGCTATCC
CAGACCTACTACAGGATTTTACGTGGCGATTTCGAAGCACCATCTGCACGGAGTCATTCCAGTTTTTGGACAGA
ATGCGGGCTGCCGGCAAGTTGGACCAGCCTGATCGTTTCTCTTCAAAGACCAGGATAATAACGAGCCCAAAAC
GACATGGTGGCCTTTTCACTGGACGGCCCTGGAGGAAATTGTGTGGCCGTCTTGACCTCTTCTCTGGCCCTC
ATTTCTGTGGATGTGAGGATCCCGGAGCAGATCATCGTGGTAGACAGCTCAATGGTGGAGAATGAGGTCAATCAA
AGCTTGGGGAAGGACGGCAGCCTGGAGGATGACGAGGATGAAGAGGATGACTTGGACGAAGGTGTAGGGGGCAAG
CGCCGGAGCATGGAGGTGAAACCTGCGCAAGCCTCCACACCACTACCTGCTGATGAGGGGCTACTACTCCCC
GGCATCGTCAGCACCCGCAACCTCAACCCCAACGACAGCATTGTGGTCAACTCTCTGCCAGATGAAGTTCCAGCTC
CGCTGCACCCCTGTGCCCCCGGCTCAGGCCCGCTGCCGCTCCTCTGGAAGAGCTAACAATGGGAACCTCCTGC
CTCCCTGATACGTTACCAAGCTGATAAACCCCCAGGAAAACACCTGCAGCTTGGAGGAGTTTGTCTCCAGCTG
GAGCTGTCTGGGTATAGTCCCGAAGACCTGACTGCTGCCCTTGGAGATCTTGAAGCCATTATAGCCACGGGTTGT
TTTGGGATTGACAAGGAGGAGCTGCGCAGACGGTTCTCGGCCCTGGAGAAGGCAGGTGGTGGGCGCACCAGGACA
TTGCGAGATTGCATCCAGGCCCTCCTGGAGCAGCATCAGGTGCTGGAGGTGCGTGGCAACACTGCGCGCTGGTA
GCCATGGGCTCTGCCTGGCCTTGGCTCCTGCACTCCGTGCCGCTGAAAGACAGAGAAGACGCCGACATCCAGAGA
GAAGACCCCCAGGCCAGACCCCTGGAGGGGTCTTCCAGTGAGGACAGCCCCCGAGGGGCAGGCACCTCCTTCT
CACAGCCCCCGGGCACCAAGAGGCGCGCAGCTGGGCCAGTGAGAATGGGGAGACCGACGCCGAGGGCACCCAG
ATGACCCCTGCCAAGAGGCCAGCGCTCCAGGACTCAAATTTGGCCCCAGCCTTGGGGCCGGAGCTGAAGATGGG
GCAGAAGCCCAGGCCCCATCTCCACCCCAAGCTCTTGAAGACACCGCTGCAGCGGGAGCAGCACAGGAAGACCAA
GAGGGTGTGCGGTGAGTTTCAAGTTCCCCAGGCCAAGAGCAGCTGAGCGGCCAGGCGCAGCCTCCAGAGGGCTCTGAA
GACCCAGAGGGTTTACAGAGAGTTTCCGAGCTGCCAACATCTCCAGGCAGCACGGGAAAGGGACTGTGAGAGT
GTCTGCTTTCATCGGCCGGCGTGGCGTGTCTGGATGGCCACCTGAACCTTCTGTATGCAAGGGTATGATGGAG
GCCATGCTGTACCACATCATGACCAGGCCTGGCATCCCCGAGAGCTCCCTGCTGCGCCACTACCAGGGGGTCTTG
CAGCCCGTCCCGTGTCTGGAGTTGCTCCAGGGCCTGGAGTCCCTCGGCTGCATCCGGAAGCGCTGGCTGAGAAAG
CCAAGGCCTGTCTCGCTCTTCTCTACACCCGTGGTGGAAAGAGGTGGAAGTGCCCTCCAGCCTGGACGAGAGCCCC
ATGGCTTTCTATGAGCCACCTTGGACTGTACCCTCCGGCTGGGCCGTGTGTTCCCCACAGAGGTCAACTGGAAC
AAGTGATCCACCTCTAGGACCCCTGTGGGCGTCCCTCCCTCCAGCCACCGCCTGCCACACCCTCCTGCCTG
GTGCTCGGCAGACCCCACTGTGCCCTGGCCTTGGGTCTGCCGAGCCTCCTGCAGCAGGGGACGGGTGCTTTGGCC
AGAGTCACAGACTGACACGTTTCCCACTGTACTGGAACCTCTGGAAGAGGGGCTCCCCGACCTGCCCATCCCCCA
GGCTCTTCTGGGCCTTCCCTTGGGAACCTGGCCTCATCAGCTGGGAGTTGGTGTCTTCTGTCTCTGGGTCTCCA
GAGTTTGGCCCGCCTGTGCACACCTCACATTCCAGACTCTAGCCATCTCGGCAGGATCTCCTGGCTCCTTGAGTG
CCCAGGTGCCACCAAGAGGAAGGGCCTTGTGGGATACACCTTGAGAATAGGGATCGGTGTGCCCGCTGCGAGG
GGCCCCCATGGGGGCTGTGGCCCTCCGAGGCAGGACATCCAACCCCTGGCTGGGACTGAACCACCCAGAGC
GGAGCGGCTCCCTTTTACGCTTGTGAGTCACCTGGCAGGCCCCAGCTGGGCTGGCTGTCCGTGTCCCTCAGCCT
GGCTGGTGATTCTTGCAGG

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FIGURE 4431

CGTATCCGCTAGCGCGGCTGGGATGCGCTTGGGCTCCCTGTTTCGTTCCCACATGCAGGGCAGCACAAGGAGAAT
GGGCGTCATGACTGATGTCCACCGGCGCTTCCTCCAGTTGCTGATGACCCATGGCGTGCTAGAGGAATGGGACGT
GAAGCGCTTGCAGACGCACTGCTACAAGGTCCATGACCGCAATGCCACCGTAGATAAGTTGGAGGACTTCATCAA
CAACATTAACAGTGTCTTGGAGTCCTTGTATATTGAGATAAAGAGAGGAGTCACGGAAGATGATGGGAGACCCAT
TTATGCGTTGGTGAATCTTGCTACAACCTCAATTTCCAAAATGGCTACGGATTTTGCAGAGAATGAACTGGATT
GTTTAGAAAGGCTCTGGAAC TGATTATTGACTCAGAAACCGGCTTTGCGTCTTCCACAAACATATTGAACCTGGT
TGATCAACTTAAAGGCAAGAAGATGAGGAAGAAGGAAGCGGAGCAGGTGCTGCAGAAGTTTGTTCAAAACAAGTG
GCTGATTGAGAAGGAAGGGGAGTTCACCCTGCACGGCCGGGCCATCCTGGAGATGGAGCAATACATCCGGGAGAC
GTACCCCGACGCGGTGAAGATCTGCAATATCTGTCACAGCCTCCTCATCCAGGGTCAAAGCTGCGAAACCTGTGG
GATCAGGATGCACTTACCCTGCGTGGCCAAGTACTTCCAGTCGAATGCTGAACCGCGCTGCCCCACTGCAACGA
CTACTGGCCCCACGAGATCCCAAAGTCTTCGACCCTGAGAAGGAGAGGGAGTCTGGTGTCTTGAAATCGAACAA
AAAGTCCCTGCGGTCCAGGCAGCATTAGCCATCGTGCCCTGCTGAGGGGCTGGCTGCCTTGAGTGGCCTGATCGC
CACAGCCCTTCTTGGAAGAAAGGCGTCCGTGTTTCAGGTTCCACGCGAGTCACCTCTTTCGTCTTAATGTTTACC
GTCCACAGCTTTGGAATAAACCATCCTGGG

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FIGURE 4432

GTCGTGATCAGACGAGCGGTGAGCGATCGATACTCCTATGCTAGCCTCTGGCTCCTCAGGGGACACAGCCGAGTG
GTCGGACCAAAACGCAACGAGTCTTCGCCAGCCCAAAGGCGACTCGACACCGTCCCAGCTGAAGAGAGGCACGGGA
CTGAACCAGCTGGTGGTGGCCCCGATCGCTGGAGACACCCACTGCCCGCAGAGCCCCCTGGCCAGAGAAGGCACTT
TATGGGAGGCCCTCAGGGCGCTCCTGCCGCACAGTAAAGAAGACCTGAAGTTGGACCTCGGGGAGAAAGTGGAGA
GGAGCGTGGTGACATTGTTGCAGCGAGCCACTGAGCTCTTCTACGAGGGCAGGAGGGACGAGTGTCTGCAGAGCA
GCGAGGTGATCCTGGACTACTCCTGGGAGAAGCTCAACACGGGCACATGGCAGGACGTAGACAAAGACTGGCGCC
GGGTCTACGCCATCGGCTGCCTCCTGAAAGCCCTGTGTCTGTGCCAGGCACCTGAGGATGCCAACACTGTGGCCG
CAGCCCTGCGGGTCTGTGACATGGGCCTGTGTATGGGGGCAGCCATCCTGGGGGACATCCTTCTTAAAGTCGCTG
CCATCCTCCAGACACACCTCCCTGGAAAGAGGCCTGCCCCGTGGCTCCCTCCCAGAGCAACCCTGCACAAAGAAAG
CAAGGGCGGACCATGGTTTGATTCCAGATGTGAAGTTAGAAAAAACAGTCCCCCGGCTGACCCGTCCGTCCCTCC
AGCATTTTCAGGGAGCAGTTTTTGGTTCCAGGGAGGCCCCGTGATCCTGAAAGCGTGGCTGACCCTGAGCCGTGCA
TGCAGAAGTGGAGTTTGGAGTATATCCAGGAGATCGCTGGCTGCCGAACCTGTCCCAGTGAAGTTGGTTTCAGGTT
ACACAGATGAGGAATGGTCCAGACCCTCATGACGGTCAACGAGTTTCATCAGCAAATACATCGTGAATGAGCCAA
GGGACGTCGGGTACCTTGCTCAGCACCAGCTCTTTGACCAGATCCCGGAGTTGAAGCAGGACATCAGCATCCCCG
ACTACTGCAGCCTGGGCGATGGGGAGGAGGAAATCACCATCAATGCCTGGTTTGGTCCCCAGGGAACCATCT
CCCCACTACATCAGGATCCCCAGCAAACTTCCTAGTGCAGGTGATGGGGAGGAAGTACATCCGGCTGTATTCCC
CGCAGGAGTCAGGGGCTCTGTACCCTCATGACACGCACCTTCTCCATAACACGAGCCAGGTTGACGTGGAGAATC
CCGACCTGGAAAAGTTCCCCAAGTTTGCCAAGGCCCATTCCTGTCTCCTGCATCCTGTCTCCTGGAGAGATCCTGT
TCATCCCGGTGAAATACTGGCATTACGTGCGGGCTCTGGATTGAGCTTCTCGGTGAGCTTCTGGTGGTCTGAGC
CAGGATAGGAGCTGAAAGGGCCTGACATGCAGACAGCATTTCATCTGTTCACTAATTTTCTGGGTCTGGAATCTA
TAGAGACAAGCAGGACTGAACCTGTGTCTGAAGAGCCTTCACTGCCCAGTGGCAGCCCTGGGGGGCTGAGCTCC
AGCACTGGACAGGCACAGAGCAGGGGCTGCCAGGAAGGAGCACACTCCAGGCCAGGGGTGCATGGCAGAGGAAG
GTGGGGAGAGCCCAGAAGGACATTGCAGACAGACAGCCTGCATGGGGACTCTGGCATCAGAAAGCCGAATGTTTT
TGGGAAACGGGTGGGTACACAGGCAGGGGTGAAACATGGGCTCTGAGGTTGGCTACCTGATTCAAACCCGGCCG
CGCTGTGCACCTGCTGGGTGACTTGGCCAGGATCCCCCACTTCGCTGTGCCCATATGGAAAAGAGGGCAAGGCCA
GTCCCTCACTGCCGAGGGCCGAGAAGGCGGTGCCGAGCCCCCTGCTGCTGCATGAACCTTAGCCGCTGTCACTGATC
CCAATTACTCTGATCCTTTTGCCCTTCCTTCCCATAACGGCCTGCTGGACGCCACAGCCTGAATACTGGAGAGAG
CTGGGCATTGCCAGGTCACAGGAGAGAGTCCGTAGAGACCTGCGCAGGAGCCGGGACCCCTGCTGAGCAGTGGG
AGCTTTTCTGTATCCCCATGGCTCAAGGATAACCTACCTGCCTGCAGAGAAGTGCGAAGGTCTTGCTGGATGACT
TTTACCCGCACTACCCAGGAGCAGGCTCCCAAGTGAAGAAACCACCGAACCATCACCAGCTCCTAGAAGCCTC
CCTCCTACCACCTTCTAGTCACCATCCCCAGAAGTAATGACTCTCAAACCTGGGGGATTTGAGGCCAGGGGGAG
AGCCAGGCTCTATGCTTTCTGTAATTGTGTCTCGTTTGTGTGCACGAGGTTTGTTTTATGTTTGGCCATTAAAG
ATTTTCCCCAGCCCTC

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FIGURE 4433

MAGDTHCPAEPLAREGTLWEALRALLPHSKEDLKLDLGEKVERS VVTLLQRATELFYEGRRDECLQSSEVILDYS
WEKLNTGTWQDVKDWRRVYAIGCLLKALCLCQAPEDANTVAAALRVCDMGLLMGAAILGDILLKVAAILQTHLP
GKRPARGSLPEQPCTKKARADHGLIPDVKLEKTVPRLHRPSLQHFREQFLVPGRPVILKGVADHWPCMQKWSLEY
IQEIAGCRTVPVEVGSRYTDEEWSQTLMTVNEFISKYIVNEPRDVGYLEAQHQLFDQIPELKQDISIPDYCSLGDG
EEEEITINAWFGPQGTISPLHQDPQQNFLVQVMGRKYIRLYSPQESGALYPHDTHLLHNTSQVDVENPDLEKFPK
FAKAPFLSCILSPGEILFIPVKYWHYVRALDLSFSVSFWWS

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FIGURE 4434

GAGCAGTGTGAAGAAGAGGCGAGAACGACCCCCAGACCGACCAAAGCCC GCGCGCCACTGCATCCCGCGTCCAGC
ACCTACGTCCTGCTGCCGTCGCCGCCACCACCATGCCCACTAAAAAGGCCCTGCAAAGAAGGGAGAGAAGGTA
CCCAAAGGGAAAAAGGGAAAAGCTGATGCTGGCAAGGAGGGGAATAACCCTGCAGAAAATGGAGATGCCAAAACA
GACCAGGCACAGAAAGCTGAAGGTGCTGGAGATGCCAAGTGAAGTGTGTGCATTTTGTATAACTGTGTACTTCTG
GTGACTGTACAGTTTGGAATACTATTTTTTATCAAGTTTTATAAAATGTGGAATTTGTTTTACTTTTTTTTTT
TTTTAAAGCTATGTTGTTAGCACACAGAACACTTCATTGTTGTTTTTGGGGGAAGGGGCATATGTCACTAATAGA
ATGTCCTCAAAGCTGGATTGATGTGGAGAAAACACCTTTCCCTTCTAGTTTTGAGAGACTTCCTCTTGGCTCCCA
GGAGGAGGGATTCCCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTTGGTATAGAAAGACAAATT
GTTTTTATGTCCTCTTCTCCCTTTCCATCTTTCAGCATAGACTTAACTCCCTTAAGCCCAGACATCTGTTGGGAC
CTGACCCCTAGTCATTGGTTACCAGTGTGTGTCAGGCAATCTGGACTTTCCAGTGATGCCACTGAGATGGCACCTGT
CAAAAGAGCAGTGGTTCCATTTCTAGATTGTGGATCTTCAGATAAATTCTGCCATTTTCATTTCACTTCCTGAAA
GTCAGAGATGGCTTGTTGTCCTGTTTCAGAGCATCAGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTT
TTGGTAGTCCATTGAAGAAGGGAGTTTGAAAGTTGTTGTATACTGTTAACGATTGTCTGCCCATGTCCTGCCTGA
AATACCATGATTGTTTATGGAAAGTATCTTTAATAAAGCTGGATACAG

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FIGURE 4435

GAAGAGGCGAGAACGACCCCCAGACCGACCAAAGCCGCGCGCCACTGCATCCCGCGTCCAGCACCTACGTCCTG
CTGCCGTCGCCGCCACCACCATGCCCAAGAGAAAGGCTGAAGGGGATGCTAAGGGAGATAAAGCCAAGGTGAAGG
ACGAACCACAGAGAAGATCCGCGAGGTTGTCTGCTAAACCTGCTCCTCCAAAGCCAGAGCCCAAGACTAAAAAGG
CCCCTGCAAAGAAGGGAGAGAAGGTACCCAAAGGGAAAAAGGGAAAAAGCTGATGCTGGCAAGGAGGGGAATAACC
CTGCAGAAAATGGAGATGCCAAAACAGACCAGGCACAGAAAGCTGAAGGTGCTGGAGATGCCAAGTGAAGTGTGT
GCATTTTTGATAACTGTGTACTTCTGGTGACTGTACAGTTTGGAAATACTATTTTTTATCAAGTTTTATAAAAATG
TGGAATTTTGTTTTACTTTTTTTTTTTTTTAAAGCTATGTTGTTAGCACACAGAACACTTCATTGTTGTTTTTGG
GGGAAGGGGCATATGTCACCTAATAGAATGTCTCCAAAGCTGGATTGATGTGGAGGATTCCCTGACTTTGACACAC
ATGGCCACCTTGGCACAAAAGCCTTGTGGTATAGAAAGACAAATT

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FIGURE 4436

GTAGTAGCTGCCAGGCTGTCCCCGCCCTGCCCGGCCGAGCCCCGCGGGCCGCCGCCACC GCCGCCATGAA
GAAGCAGTTCAACCGCATGAAGCAGCTGGCTAACCCAGACCGTGGGCAGAGCTGAGAAAAACAGAAGTCCTTAGTGA
AGATCTATTACAGATTGAGAGACGCTGGACACGGTGGCGTCAATATGCCACCATTCCCATAGCGCTTGGTGGC
ATGTTTCCAGGGCCAGCATGGCACCGATGCCGAGAGGAGACACAAAAAAGTGCCTCTGACAGCTCTTGCTCAAAA
TATGCAAGAAGCATCGACTCAGCTGGAAGACTCTCTCTGGGGAAGATGCTGGAGACGTGTGGAGATGCTGAGAA
TCAGCTGGCTCTCGAGCTCTCCAGCACGAAGTCTTTGTTGAGAAGGAGATCGTGGACCTCTGTACGGCATAGC
TGAGGTGGAGATTCCCAACATCCAGAAGCAGAGGGAGCAGCTTGCAAGATTGGTGTAGACTGGGATTTCAGTCAG
AGCCAGGTGGAACCAAGCTCACAAATCCTCAGGAACCAACTTTCAGGGGCTTCCATCAAAAATAGATACTCTAAA
GGAAGAGATGGATGAAGCTGGAATAAAGTAGAACAGTGCAAGGATCAACTTGCAGCAGACATGTACAACCTTTAT
GGCCAAAGAAGGGGAGTATGGCAAATCTTTGTTACGTTATTAGAAGCCCAAGCAGATTACCATAGAAAAGCATT
AGCAGTCTTAGAAAAGACCTCCCCGAAATGCGAGCCCATCAAGATAAGTGGGCGGAAAAACCGCCTTTGGGAC
TCCCTTAGAAGAACCTGAAGAGGAGCGGGCGCAGATTGCGCTGCCCATGGAAGCCTGTGTATGCTGCTTCT
GGAGACAGGCATGAAGGAGGAGGGCCTTTCCGAATTGGGGCTGGGGCCTCCAAGTTAAAGAAGCTGAAAGCTGC
TTTGGACTGTTTACTTCTACCTGGATGAGTTCTATTACAGCCCCATGCTGTAGCAGGTGCTTTAAATCCTA
TTACGGGAATTGCCTGAACCTTTGATGACTTTAATCTGTATGAAGAAATGGACACAAGTTGCAAGTGTGCAGGA
TCAAGACAAAAAAGCTTCAAGACTTGTGGAGAACATGTCAGAAGTTGCCACCACAAAATTTGTTAACTTTAGATA
TTTGATCAAGTTCCTTGCAAAGCTTGCTCAGACCAGCGATGTGAATAAAATGACTCCCAGCAACATTGCGATTGT
GTTAGCCCCTAAGTTGTTATGGGCCAGAAACGAAGGAACACTTGCTGAAATGGCAGCAGCCACATCCGTCCATGT
GGTTGCAGTGATTGAACCCATCATTACAGCATGCCGACTGGTTCTTCCCTGAAGAGGTGGAATTTAATGTATCAGA
AGCATTGTACCTCTACACCCCCGAGTTCTAATCACTCATTCCACACTGGAACGACTCTGACTCGGGGACCTT
GGAGAGGAAGCGCGCTGCTAGCATGGCGGTGATGGAAGGAGACTTGGTGAAGAAGGAAAGTCTCCCAAACCGAA
GGACCCTGTATCTGCAGCTGTGCCAGCACCAGGGAGAAACACAGTCAGATAGCATCTGGCCAAAATCAGCCCCA
GGCAGCTGCTGGCTCCCACCAGCTCTCCATGGGCCAACCTCACAAATGCTGCAGGGCCCCAGCCCGCATACACTGCG
CCGAGCTGTTAAAAAACCCTCCAGCACCCCCGAAACCGGGCAACCCACCTCCTGGCCACCCCGGGGGCCAGAG
TTCTTCAGGAACATCTCAGCATCCACCCAGTCTGTACCAAAGCCACCCACCCGAGCCCCCTCTCTCCACCCA
GCACACGGGGCCAGCCTCCAGGCCAGCCCTCCGCCCTTCCAGCTCTCAGCACCCCGGAGGTACTCCAGCAGCTT
GTCTCCAATCCAAGCTCCCAATCACCCACCGCCGAGCCCCCTACGCAGGCCACGCCACTGATGCACACCAAACC
CAATAGCCAGGGCCCTCCCAACCCCATGGCATTGCCAGTGAGCATGGACTTGAGCAGCCATCTCACACCCCTCC
CCAGACTCCAACGCCCCCAGTACTCCGCCCTAGGAAAACAGAACCCCAAGTCTGCCAGCTCCTCAGACCCCTGGC
AGGGGGTAACCTGAAACTGCACAGCCACATGCTGGAACCTTACCAGAGACCGAGACCAGTACCAAAGCCAAGGAA
CCGGCCCAGCGTGCCCCACCCCCCAACCTCCTGGTGTCCACTCAGCTGGGGACAGCAGCCTACCAACACAGC
ACCAACAGCTTCCAAGATAGTAACAGACTCCAATTCAGGGTCTCAGAACCGCATCGCAGCATCTTTCTGAAGT
GCACTCAGACTCAGCCAGCAAAGACGTGCCTGGCCGCATCCTGCTGGATATAGACAATGATACCGAGAGCACTGC
CCTGTGAAGAAAGCCCTTTCCAGCCCTCCACCACTTCCACCTGGCGAGTGGAGCAGGGGCAGGCGAACCTCTT
TCTTTGCAGACCGAACAGTGAAGGCTTTTCACTGGAGGACAAAGGAGGGCCTCACTGTGTGGACCTGGCCTTCT
GCACGGCCCAAGGAGAACCTGGAGGCCACCACTAAAGCTGAATGACCTGTGTCTGAAGAAGTTGGCTTTCTTTA
CATGGGAAGGAAATCATGCCAAAAAATCCAAAACAAAGAAGTACCTGGAGTGGAGAGAGTATTCTGTCTGAAAC
GCGCATAGGAAGCTTTTGTCCCTGCTGTTAATGCGGGCAGCACCTACAGCAACTTGAATGAGTAAGAAGCAGTG
CGTTAACTATCTATTTAATAAAATGCGCTCATTATGCAAGTCGCCTACTCTCTGCTACCTGGACGTTTCTTTA
TGTATTAGGAGGGAGGCTGCGCTCCTTCAGACTTGCTGCAGAATCATTTTGTATCATGTATGGTCTGTGTCTCCC
CAGTCCCCTCAGAACCATGCCATGGATGGTGAAGTCTGCTGGCTCTGTACCTCATCAAACTGGATGTGACCCATGC
CGCCTCGTTGGATTGTGGAATGTAGACAGAAATGTACTGTTCTTTTTTTTTTTTTTAAACAATGTAATTGCTAC
TTGATAAGGACCGAACATTATTCTAGTTTCATGTTAATTTGAATTAATATATTCTGTGGTTTATATG

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FIGURE 4437

MKKQFNRMKQLANQTVGRAEKTEVLSEDLLQIERRLDTVRSICHHSHKRLVACFQGQHGTDAERRHKKLPLTALA
QNMQEASTQLEDSSLGKMLETCGDAENQLALELSQHEVFVEKEIVDPLYGIAEVEIPNIQKQREQLARLVLDWDS
VRARWNQAHKSSGTNFQGLPSKIDTLKEEMDEAGNKVEQCKDQLAADMYNFMMAKEGEYGKFFVTLLAQADYHRK
ALAVLEKTLPEMRAHQDKWAEKPAFGTPLEEHLKRSGREIALPIEACVMLLLETGMKEEGLFRIGAGASKLKKLK
AALDCSTSHLDEFYSDPHAVAGALKSYLRELPEPLMTFNLYEEWTQVASVQDQDKKLQDLWRTCQKLPPQNFVNF
RYLIKFLAKLAQTSVDNKMTPSNIAIVLAPNLLWARNEGTLAEMAAATSVHVAVIEPIIQHADWFFPEEVEFNV
SEAFVPLTTPSSNHSFHTGNDSDSGTLERKRPASMAVMEGDLVKKESPPKPKDPVSAAVPAPGRNNSQIASGQNO
PQAAAGSHQLSMGQPHNAAGPSPHTLRRVKKPAPAPPKPGNPPPGHPGGQSSSGTSQHPPSLSPKPPTRSPSP
TQHTGQPPGQPSAPSQLSAPRRYSSSLSPIQAPNHPPQPPTQATPLMHTKPNSQGPNNPMALPSEHGLEQPSHT
PPQTPTPPSTPPLGKQNP SLPAQTLAGGNPETAQPHAGTLPRPRPVKPRNRPSVPPPPQPPGVHSAGDSSLTN
TAPTASKIVTDSNSRVSEPHRSIFPEVHSDSASKDVPGRILLDIDNTESTAL

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FIGURE 4438A

GAAACCTCTAGGTCCACCACCTCCATCTTACACGTGTTTCCGTTGTGGTAAACCTGGACATTATATTAAGAATTG
CCCAACAAATGGGGATAAAACTTTGAATCTGGTCCTAGGATTAAAAAGAGCACTGGAATCCCAGAAGTTTCAT
GATGGAAGTGAAAGATCCTAATATGAAAGGTGCAATGCTTACCAACACTGGAAAATATGCAATACCAACTATAGA
TGCAGAAGCATATGCAATTGGGAAGAAAGAGAAACCTCCCTTCTTACCAGAGGAGCCATCTTCTCCTCAGAAGA
AGATGATCCTATCCCAGATGAATTGTTGTGTCTCATCTGCAAGGATATTATGACTGATGCTGTTGTGATTCCCTG
CTGTGGAAAACAGTTACTGTGATGAATGTATAAGAACAGCACTCCTGGAATCAGATGAGCACACATGTCCGACGTG
TCATCAAAATGATGTTTCTCCTGATGCTTTAATTGCCAATAAATTTTTACGACAGGCTGTAAATAACTTCAAAA
TGAACTGGCTATACAAAAGACTACGAAAACAGTTACCTCCTCCACCACCCCAATACCACCTCCGAGACCACT
GATTCAAGGAACTACAACCTCTGATGAGATCTCCGATATCAAGACAACAAGATCCTCTTATGATTCCAGTGAC
ATCTTCATCAACTCACCAGCTCCGCTCTATATCTTCATTAACTTCTAATCAGTCTTCTTGGCCCCCTCCTGTGTC
TGGAAATCCGCTCTTCTGCTCCAGCTCCTGTACCTGATATAACTGCAACAGTATCCATATCAGTTCATTACAGAAA
ATCAGATGGACCTTTTCGGGATTCTGATAATAAAATATTGCCAGCTGCAGCTCTTGATCAGAGCACTCAAAGGG
AACCTCCTCAATTGCAATTACCGCTCTTATGGAAGAGAAGGGTTACCAGGTGCCTGTTCTTGGAACCCCATCTTT
GCTTGGACAGTCATTATTGCATGGACAGTTGATCCCCACAACCTGGTCCAGTAAGAATAAATACTGCTCGTCCAGG
TGGTGGTCGACCAGGCTGGGAACATTCCAACAACTTGGCTATCTGGTTTCTCCACCACAACAAATTAGAAGAGG
GGAGAGGAGCTGTACAGAAGTATAAACCGTGGGCGACACCACAGCGAAAGATCACAGAGGACTCAAGGCCCCGTC
ACTACCAGCAACTCCAGTCTTTGTACCTGTTCCACCACCTCCTTTGTATCCGCCTCCTCCCCATACACTTCCTCT
CCCTCCGGGTGTTCTCCTCCACAGTTTCTCCTCAGTTTCTCCTGGCCAGCCACCACCGCTGGGTATAGTGT
CCCTCCTCCAGGGTTTCTCCTCAGCTCCTGCCAATTTATCAACACCTTGGGTATCATCAGGAGTGCAGACAGCTCA
TTCAAATACCATCCCAACAACACAAGCACCACCTTTGTCCAGGGAAGAATTCTATAGAGAGCAGCGACGACTAAA
AGAAGAGTCTAAATCTCCCTATAGTGGTTCTTCGTATTCAAGAAGTTCATATACTTATTCTAAATCAAGATCTGG
TTCAACACGTTACGCTCTTATTCTCGATCATTACGCCGCTCACATTCTCGTTCCTATTACGGTCCACCTCCATA
CCCCAGAAGAGGCGAGGCAAGAGCCGCAATTACCGTTACGGTCTAGATCTCATGGATATCATCGATCTAGGTC
AAGGTCACCCCCCTTACAGACGCTATCATTACGATCAAGATCTCCTCAAGCGTTTAGGGACAGTCTCCTAATAA
ACGTAATGTACCTCAAGGGGAAACAGAACGTGAATATTTTAATAGATACAGAGAAGTTCACCACCATATGACAT
GAAAGCATATTATGGGAGAAGTGTGACTTTAGAGACCCATTTGAAAAAGAACGCTACCGAGATGGGAGAGAAA
ATATAGAGAGTGGTATGAAAAATATTATAAAGGTTATGCTGCTGGAGCACAGCCTAGACCCTCAGCAATAGAGA
GAACTTTTCTCCAGAGAGATTTTTTGCCACTTAACATCAGGAATTCTCCCTTCACAAGAGGCCGAGAGAACTA
TGTTGGTGGGCAAAGTCATAGAAGTCGAAACATAGGTAGCAACTATCCAGAAAAGCTTTACGCAAGAGATGGTCA
CAATCAGAAGGATAATACAAAGTCAAAAGAGAAGGAGAGTGAAAACGCTCCAGGAGATGGTAAAGGAAATAAGCA
TAAGAAAACAGAAAAAGAAAGAAAGGGGAGGAAAGTGAGGGTTTTCTGAACCCAGAGTTATTAGAGACTTCTAG
GAAATCAAGAGAACCTACAGGTGTTGAAGAAAATAAAACAGACTCATTGTTTGTCTCCCAAGTAGAGATGATGC
CACACCTGTTAGAGATGAACCAATGGATGCAGAATCAATCATTTTAATCAGTGTCTGAAAAAGACAAGAGAGA
AAGGGATAAAACCAAAGCAAAGGGTGATAAAACCAAACGGAAGAATGATGGATCTGCTGTGTCCAAAAAAGAAAA
TATTGTAAAACCTGCTAAAGGACCCCAAGAAAAAGTAGATGGAGAACGTGAGAGATCTCCTCGATCTGAACCTCC
AATTAAGAAAGCCAAAGAGGAGACTCCGAAGACTGACAATACTAAATCATCATCTTCTCTCAGAAGGATGAAAA
AATCACTGGAACCCCCAGAAAAGCTCACTCTAAATCAGCAAAAGAACCAAGAAACAAAACCAAGTCAAGAGGGA
AAAAGTGAAGAAGGACTATTCCAAAGATGTCAAATCAGAAAAGCTAACAACTAAGGAAGAAAAGGCCAAGAAGCC
TAATGAGAAAAACAAACCACTTGATAATAAGGGAGAAAAAGAAAAAGAAAACTGAAGAAAAAGGCGTAGATAA
AGATTTTGAGTCTTCTTCAATGAAAATCTCGAACTAGAAGTGAATAGTGAACCATCACCAAAGCGCAA
AATGGAACCTGATACTGAAAAATGGATAGGACCCCTGAAAAGGACAAAATTTCTTTAAGTGCGCCAGCCAAAAA
AATCAAACCTCAACAGAGAACTGGGAAGAAAATTGGAAGTACAGAAAATATATCAAACACAAAAGAACCTCTGA
AAAATTGGAGTCAACATCTAGCAAAGTTAAACAAGAAAAAGTCAAAGGAAAGGTCAGACGAAAAGTGAAGTGAAC
TGAAGGATCCAGCTCAACTCTGGTGGATTACACCAGTACGAGCTCAACTGGAGGCAGTCTGTGCGGAAATCTGA
AGAAAAACAGATACAAAGCGAAGTGTGATTAACGATGGAAGAATATAATAATGACAATACCGCGCCAGCTGA
AGATGTTATCATTATGATTAGGTTCTCAATCCAAATGGGATAAAGATGACTTTGAATCTGAAGAAGAAGATGT
TAAATCCACACAGCCTATATCAAGTGTAGGAAAACCTGCTAGTGTATAAAAAATGTTAGTACAAAGCCATCAAA
TATAGTCAAGTATCTGAGAAAGAAAGTGAGCCATCCGAGAAAATTCAGAAAATTCACCAAGGACGTGAGCCATGA

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FIGURE 4438B

AATCATACAACATGAGGTTAAAAAGTTCAAAAACTCTGCATCTAGTGAAAAAGGGAAAACCAAAGATCGAGATTA
TTCAGTGTGGAAAAAGGAGAACCCCTGAAAAGAGGAAGAACAGCACTCAGCCAGAGAAAGAGAGTAATTTGGACCG
TCTGAATGAACAAGGAAATTTTAAAAAGTCTGTCTCAATCTTCCAAAGAGGCTAGAACGTCAGATAAACATGATT
CACTCGTGCTTCCTCAAAATAAAGACTTCACTCCCAATAGAGACAAAAAACTGACTATGACACCAGAGAGTATT
AAGTTCCAAACGTCAGAGATGAAAAAATGAATTAACAAGACGAAAAGACTCTCCTTCTCGGAATAAAGATTCTGC
ATCTGGACAGAAAAATAAACCAAGGGAAGAGAGAGATTTGCCTAAAAAAGGAACAGGAGATTCCAAAAAAGTAA
TTCTAGTCCCTCAAGAGACAGAAAACCTCATGATCACAAAGCCACTTATGATACTAAACGGCCAAATGAAGAGAC
AAAACTGTAGATAAAAAATCCTTGTAAGGATCGTGAGAAGCATGTATTAGAAGCAAGGAACAATAAAGAGTCAAG
TGGCAATAAACTACTTTATATACTTAACCCACCAGAGACACAGGTTGAAAAAGAGCAAATTACTGGGCAAATTGA
CAAGAGTACTGTCAAGCCTAAACCCAGTTAAGTCATTCTCTAGACTTTCTCTGACTTAACTAGAGAACTGA
TGAAGCTGCTTTTGAACCAGACTATAATGAAAGTGACAGTGAAAGTAATGTTTCTGTAAAAGAAGAGGAATCTTC
AGGAAACATTTCTAAGGACCTGAAAGATAAAATAGTGGAGAAAGCAAAGAGAGCCTGGACACAGCAGCAGTTGT
CCAGGTGGGCATAAGCAGGAATCAGAGCCACAGCAGCCCCAGCGTCAGCCCCAGCAGAAGCCACAGTCCTTCTGG
AAGCCAGACCCGAAGCCACAGTAGCAGTGCCAGCTCAGCAGAAAGTCAGGACAGCAAGAAGAAGAAAAAGAA
GGAAAAGAAAAACACAAGAAACATAAAAAAGCATAAGAAGCATAAGAAACATGCAGGCACTGAAGTGGAATTGGA
AAAAAGCCAAAAACACAACACAAGAAAAAGAGTCAAGAAGAAACAAAGATAAAGAGAAGGAGAAGGAGAAAGA
TGACCAAAAAGTGAAATCTGTCACTGTGTAAAAAGACAGATTTTTTAAATTGACTTAATTACTAAGTCATCTGTA
TTAAATTTTGTTATAATGTAAAGAGATTCAAGCCTTGTAATAATGACATGGAAGACCCTGTGCTGCACTTAAAA
TATTGCTGCTTGATTATTTGATTTTACATCAGAGCTTTATAACACGAACCTTTGTACAGAATTGTGAGTTGTGA
CCATGTAACATGAGAGGTTTTGCTAGGGCCTATTATTTTAAACCACCTTAATTAGTTGGGGTGGAGTTTACTGT
AATGTGAAATTTTACATTTGAATTTTTTAATTGCCTGGCAAAAGCTGATATAAGTTCTAAAATATCAGCAGAAT
GATTTGCTGAATTCATTACAACCTGTTATGTCACCTTTTGATTACAATAAAAGTTTTTCAGTAAACTTTTC

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FIGURE 4439

MATTKAIDDSSASISLAQLTKTANLAEANASEEDKIKAMMSQSGHEYDPINYMKKPLGPPPPSYTCFRCGKPGHY
IKNCPTNGDKNFESGPRIKKSTGIPRSFMMEVKDPNMKGAMLTNTGKYAIPITIDAEAYAIGKKEKPPFLPEEPSS
SSEEDDPIPELLCLICKDIMTDAVVIPCCGNSYCDICRTALLEDEHTCPTCHQNDVSPDALIANKFLRQAVN
NFKNETGYTKRLRKQLPPPPPIPPRPLIQRLQPLMRSPISRQDPLMIPVTSSSTHPAPSISLTSNQSSLA
PPVSGNPSSAPAPVPDITATVSVHSEKSDGPFRRSDNKILPAAALASEHSKGTSSIAITALMEEKGYQVPVLG
TPSLLGQSLLHGQLIPTTGVRINTARPGGGRPGWEHSNKLGYLVSPQQIRRGERSCYRSINRGRHHSERSQRT
QGPSLPATPVFVPVPPPLYPPPPHTLPLPPGVPPPQFSPQFPQGPPAGYSVPPPGFPPAPANLSTPWVSSGV
QTAHSNTIPTTQAPPLSREEFYREQRLKEESKSPYSGSSYSRSSYTYSKSRSGSTRSRYSRSFSRSHRSYSR
SPPYPRRGRGKSRNYSRSHGYHRSRSPPYRRYHSRSPQAFRGQSPNKRNVPOGETEREYFNRYREVPP
PYDMKAYYGRSVDFRDPFEKERYREWERKYREWYKYYKGYAAGAQPRPSANRENFSERFLPLNIRNSPFTTRGR
REDYVGGQSHRSRNIGSNYPEKLSARDGHNQKDNKTSKEKESENAPGDGKGNKHKHKKRKRKGESESEGLNPELL
ETSRKSREPTGVEENKTDLSFLPSRDDATPVRDEPMDAESITFKSVSEKDKRERDKPKAKGDKTKRKNDGSAVS
KKENIVKPAKGPQEKVDGERERSRSEPPIKKAKEETPKTDNTKSSSSSQKDEKITGTPRKAHKSASKEHQETKP
VKEEKVKKDYSKDVKSEKLTKEEKAKKPNKPNKPLDNKGEKRRKTEKGVKDFESSMKISKLEVTEIVKPS
PKRKMEPDTEKMDRTPEKDKISLSAPAKKIKNRETGKKIGSTENISNTKEPSEKLESTSSKVKQEKVKGVRRK
VTGTEGSSSTLVDYTSSTGGSPVRKSEKTDTKRTVIKTMEYNNNDNTAPAEDVIIMIQVPQSKWDKDDFESE
EEDVKSTQPISSVGKPAVKNVSTKPSNIVKYPEKESEPSEKIQKFTKDVSHI IQHEVKSSKNSASSEKGTK
DRDYSVLEKENPEKRNSTQPEKESNLDRLNEQGNFKSLSQSSKEARTSDKHDSTRASSNKDFTPNRDKKTDYDT
REYSSSKRRDEKNELTRRKDSPSRNKDSASGQKNKPREERDLPPKGTGDSKKSNSSPSRDRKPHDHKATYDTKRP
NEETKSVDKNPCKDREKHVLEARNNKESSGNKLLYILNPPETQVEKEQITGQIDKSTVKPKPQLSHSSRLSSDLT
RETDEAAFEPDYNESDSESNVSVKEESSGNISKDLKDKIVEKAKESLDTAAVVQVGISRNQSHSSPSVSPSRSH
SPSGSQTRSHSSSASSAESQDSKKKKKKKKKKKKKKKKKKKKHAGTEVELEKSQKHKKKKKKSKKNKDKEKE
KEKDDQVKVSVTV

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FIGURE 4440

TGACATTGTGCCC GTTGGCGGATTCTCGATTTCCCCTCTTCCCCGTCCTCGTCCTCCTCCTCCCCCATGAAGTGA
TTCTGAGTATCGGGGGGTCTCTGGATTATTGTTCTGACGAACCCCTGCTTGTGGTTGGGGGGTATTTAATCTGAG
GCCTTAGGGTCC TTCGGTGTCTTTGAGTGTGTTGTGTGTACATATTTTACTCTTAAAGTTTATAAAATATACGTAT
ATTGAGAGTGTCCACGTCTCCTCGCTGAACCTTAGGAATCCCTTGGCACCATGTCTGTGTGCATTATAAAATTTT
CCTCTAAACTCAACTATGATACCGTCACCTTTGATGGGCTCCACATCTCCCTCTGCGACTTAAAGAAGCAGATTA
TGGGGAGAGAGAAGCTGAAAGCTGCCGACTGCGACCTGCAGATCACCAATGCGCAGACGAAAGAAGGTAAGGGCC
GCTTGGTCTTAAGATATTTGGTGGCTGGAGAGAGATACTAGCTAGAAGGTGCCTGGCAGGAAGCTAACCGCCATT
ATGTCTCTAGTGGGGACTGTTTCGTTCTAGTACTTTGGATACAACTTTCATTGATAGCCAAGGTTTGCAGCAGTTG
GCCTTGGAGTTTCACTGGTTTTATTTTATTTCTGCATACTTGGGTCACTGTAAACAGGCTAACCCAAAACGTGGAA
GCCTGATTATTCTTCTCGCTGTTTTTTTAAATGAGGGAGGGAGGAGAGGGGGATAGCTATCTAGACTCTTTGAGT
GCTTGTCTTAGGGCGTTTTCTAACTTATTTTCCATCAGGAGGGCAGGAGAGCCTGTGCAAAGCTTGTGTGTTCAA
TCAGC

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FIGURE 4441

MSCVHYKFSSKLNVDTVTFDGLHISLCDLKKQIMGREKLKAADCDLQITNAQTKEGKGRLVLRYLVAGERY

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FIGURE 4442

GGCACGAGGGAGCGGTGCGGAGGCTCTGCTCGGATCGAGGTCTGCAGCGCAGCTTCGGGAGC**ATC**AGTGTGCAG
TGACTGCAGGGAAGCTGGCACGGGCACCGGCCGACCCTGGGAAAGCCGGGGTCCCCGGAGTTGCAGCTCCCCGGAG
CTCCGGCGGCGGCTCCACCGGCGAAAGAGATCCCGGAGGTCTTAGTGGACCCACGCAGCCGGCGGCGCTATGTGC
GGGGCCGCTTTTTGGGCAAGGGCGGCTTTGCCAAGTGCTTCGAGATCTCGGACGCGGACACCAAGGAGGTGTTTCG
CGGGCAAGATTGTGCCTAAGTCTCTGCTGCTCAAGCCGCACCAGAGGGAGAAGATGTCCATGGAAATATCCATT
ACCGCAGCCTCGCCCCACCAGCACGTCTAGGATTCCACGGCTTTTCGAGGACAACGACTTCGTGTTTCGTGGTGT
TGGAGCTCTGCCGCGGAGGTCTCTCCTGGAGCTGCACAAGAGGAGGAAAGCCCTGACTGAGCCTGAGGCCCCGAT
ACTACCTACGGCAAATTGTGCTTGGCTGCCAGTACCTGCACCGAAACCGAGTTATTCATCGAGACCTCAAGCTGG
GCAACCTTTTCTGAATGAAGATCTGGAGGTGAAAATAGGGGATTTTGGACTGGCAACCAAGTGAATATGACG
GGGAGAGGAAGAAGACCCTGTGTGGGACTCCTAATTACATAGCTCCCGAGGTGCTGAGCAAGAAAGGGCACAGTT
TCGAGGTGGATGTGTGGTCCATTGGGTGTATCATGTATACCTTGTTAGTGGGCAAACCACTTTTGAGACTTCTT
GCCTAAAAGAGACCTACCTCCGGATCAAGAAGAATGAATACAGTATTCCTAAGCACATCAACCCGTGGCCGCCT
CCCTCATCCAGAAGATGCTTCAGACAGATCCCACTGCCCGCCCAACCATTAACGAGCTGCTTAATGACGAGTCT
TTACTTCTGGCTATATCCCTGCCCCTCTCCCCATCACCTGCCTGACCATTCCACCAAGGTTTTTCGATTGCTCCCA
GCAGCCTGGACCCAGCAACCGGAAGCCCCCTCACAGTCTCAATAAAGGCTTGGAGAACCCCTGCCTGAGCGTC
CCCGGGAAAAAGAAGAACCAGTGGTTCGAGAGACAGGTGAGGTGGTTCGACTGCCACCTCAGTGACATGCTGCAGC
AGCTGCACAGTGTCAATGCCTCCAAGCCCTCGGAGCGTGGGCTGGTCAGGCAAGAGGAGGCTGAGGATCCTGCCT
GCATCCCCATCTTCTGGGTGAGCAAGTGGGTGGACTATTTCGGACAAGTACGGCCTTGGGTATCAGCTCTGTGATA
ACAGCGTGGGGGTGCTCTTCAATGACTCAACACGCCTCATCCTCTACAATGATGGTGACAGCCTGCAGTACATAG
AGCGTGACGGCACTGAGTCTACCTACCGTGAGTTCCCATCCCAACTCCTTGATGAAGAAGATCACCTCCTTA
AATATTTCCGCAATTACATGAGCGAGCACTTGCTGAAGGCAGGTGCCAACATCACGCCGCGCGAAGGTGATGAGC
TCGCCCCGCTGCCCTACCTACGGACCTGGTTCCGCACCCGCAGCGCCATCATCCTGCACCTCAGCAACGGCAGCG
TGCAGATCAACTTCTTCCAGGATCACACCAAGCTCATCTTGTGCCCACTGATGGCAGCCGTGACCTACATCGACG
AGAAGCGGGACTTCCGCACATACCGCCTGAGTCTCCTGGAGGAGTACGGCTGCTGCAAGGAGCTGGCCAGCCGGC
TCCGCTACGCCCCGCACTATGGTGGACAAGCTGCTGAGCTCACGCTCGGCCAGCAACCGTCTCAAGGCCTCC**TAA**T
AGCTGCCCTCCCCCTCCGGACTGGTGCCCTCCTCACTCCCACTGCATCTGGGGCCCATACTGGTTGGCTCCCGCG
GTGCCATGTCTGCAGTGTGCCCCCAGCCCCGGTGGCTGGGCAGAGCTGCATCATCCTTGCAGGTGGGGGTGCT
GTGTAAGTTATTTTTGTACATGTTTCGGGTGTGGGTTCTACAGCCTTGTCCCCCTCCCCCTCAACCCACCATATG
AATTGTACAGAATATTTCTATTGAATTCGGAACGTCTCTTCTTGGCTTTATGCACATTAAACAGATGTGAATA
TTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4443

MSAAVTAGKLARAPADPGKAGVPGVAAPGAPAAAPPAKEIPEVLVDPRSRRRYVRGRFLGKGGFAKCFEISDADT
KEVFAGKIVPKSLLLKPHQREKMSMEISIHRSIAHQHVVGFGFFEDNDFVVFVLELCRRRSLLELHKRRKALTE
PEARYYLQIVLGCQYLHRNRVIHRDLKLGNLFLNEDLEVKGIDFGLATKVEYDGERKKTLCGTPNYIAPEVLSK
KGHSFEVDVWSIGCIMYTLVVGKPPFETSCLKETYLRIKKNEYSIPKHINPVAASLIQKMLQTDPTARPTINELL
NDEFFTSGYIPARLPITCLTIPPRFSIAPSSLDPSNRKPLTVLNKGLENPLPERPREKEEPVVRETGEVVDCHLS
DMLQQLHSVNASKPSEGLVRQEEAEDPACIPFWVSKWVDYSDKYGLGYQLCDNSVGVLFNDSRLLILYNDGDS
LQYIERDGTESYLTVSSHPSNLMKKITLLKYFRNYMSEHLLKAGANITPREGDELARLPYLRTWFRTRSAILHL
SNGSVQINFFQDHTKLILCPLMAAVTYIDEKRDFRTYRLSLLEEYGCCKELASRLRYARTIMVDKLLSSRSASNRL
KAS

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[illegible]

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FIGURE 4445

MELGELLYNKSEYIETASGNKVSRSVLCGSQNIVLNGKTIVMNDICIIRGDLANVRVGRHCVVKSRSVIRPPFKK
FSKGVAFFPLHIGDHVFI EEDCVVNAAQIGSYVHVGKNCVIGRRCVLKDCCCKILDNTVLPPE TVVPFTVFSGCP
GLFSGELPECTQELMIDVTKSYYQKFLPLTQV

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FIGURE 4446

AGTGCATCCTGGGTTGGCGTAGCCATGGCGTCTCGTGTCTTTTCAGCCTATGTCAGCCGCTGCCCGCGGCCTTT
GCGCCGCTGCCCCGGGTCCGGATGCTGGCCGTGGCCCGGCCTCTCAGCACTGCTCTCTGCTCCGCGGGGACCCAG
ACGAGGCTCGGGACTTTGCAGCCGGCCTTAGTGCTCGCGCAGGTTCTGGTAGAGTTACACAGTTGTGCCGCCAG
TATAGCGACATGCCTCCTTTGACGTTAGAGGGCATCCAGGACCGTGTTCTTTACGTATTGAACTCTATGACAAG
ATTGACCCAGAGAAGCTTTCAGTAAATTCTCATTTTATGAAAGACCTGGGCTTAGACAGTTTGACCAAGTGGAG
ATTATCATGGCCATGGAAGACGAATTGGGTTTGAAATTCCTGATATAGATGCTGAAAAGTTAATGTGTCCACAA
GAAATTGTAGATTACATTGCAGATAAGAAAGATGTATATGAATAAAGTATCAGACCCTTTGGCTTTGCTGAGAGA
GGACTCAGATGATAGTGACGAATGTCTGGCAGTGAGGACACATTTGGCATTCTTGCTGACTCTGACAGAGTGAT
TCTGATGGACTTGTATTTAAATTGTATGTGTTTTACTCTTTGAAAATAAATCTATAAAACCAA

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FIGURE 4447

MASRVLSAYVSRLPAAFAFLPRVRMLAVARPLSTALCSAGTQTRLGTLQPALVLAQVPGRVTQLCRQYSMPPLT
LEGIQDRVLYVLKLYDKIDPEKLSVNSHFMKDLGLDQLDQVEIIMAMEDEFGFEIPDIDAELMCPQEIVDYIAD
KKDVYE

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FIGURE 4448

GTTTTCCATGTTGCCCAGGCTGGTCTCAAACCTCTGGGCTCAAGCAATCCTTCTGTCTCAGCCTCCCCAAGTAC
TGGGATTACAGGCATGTCCCACCATGCCCAGACTAATATTTACTTTTAAATCAGACTAAGATAGGGTTACTACTTG
AGTTGCTATGGCTCCAGCTGAAAGCCTGTGCAGTCATATCATGGGTAAACATTTGCTTTATGCTAAAAATATGGT
GGACCTGGCATTACAGCTATTACAAATCTCCTAAGGTGTCTCAGGTAGTGTATTAGTTACTTTTCATACTGCTAT
GAAGAAATACTCGAGACTGGGTAAATTTATAAAGGAAAAGAGGTTTTAATGTACTCACAGTTCACAAGGCTGGGGA
GGCCTCAGAATCATGGTGGAAGGCAAAGAAGGAGCAAAGGTACGTCTTACATGGCTGCAGGAAAGAGAGCACGTG
CAGGGAAACTGCCCTTTATAAAACCATCAGATTTAGTGAGATGTATTCACATCACAAGAACAGTATGGGAAAAA
CCTGCCCCCATGATTTGATTACCTCCTACCAGGTCCCTCCCACGACACATGGGGATTATGGGAACACAAATTCAA
GATGAAATTTGGGTGGGGACGCAGCCAAACCATATCGGGTAGCAACAACCTAGGGTCAGTTTTGCAGGTGGTAAA
GCCATTTACCAAGATAGTTGTAGGTAAAGAAGGGCAGATTTATTAGAGAAATTATGAAAATATGTTGCAGTGGGC
AGCTCAGCAGAGAAGGGGCTACCTGCAAAGAGGCAGGGGCTGGAGGAAAGTTTTATAGGGTCCTGCTGAAGGGTG
CTACGTGTGGAATGAGGTCAATTGTGCCCCGAGGTTGTTTGTGATTAGCTGTCTCTAACAATTGTTTCATACAGTAA
TTGTTCAATTATTGTTCTCAACTTGGGGCTCTCCCCAACCTGGGGACCCCTTCCTTATTGTTGCTTACTTATCAGGA
CTCCACATAAGGGTGTGGAACTTCATTTCATTATCTTCAACACAAATTGTAGGTAGCCTGTTTTTTAAAAAA
TTTATTCAACAAATATTTAGTCCAAGCCACTGTTACTTATTACCCTCTCTACTTCTGTATGGACTTTTAACTATC
TCTGACACTATTCACTATTCTTCCACATTCTCTATTATTTATACCTATGGTAAAATTTGCCAGTTTGACCATGCA
ACTAATACTCACAGGGAATATATAGAGTCTAGAAGAAAATATACAGGTCCTTAGAGGCTGCTCTGCCAACAAAAC
CATAATGCAGGAACAAACATCACAACATATGCCAAATAATCAATCCTACAATGTCCAAAATTTACTTTAAAACTG
GAATTTCCAGACTTCCTTTCTGCATTAAACAGTTTAACTAGATAGTAATGAAATATCCCTCTACTTTATGCTGTG
ATAGTTTATTTATTTATTTGAGAGTTTATTTATTTATTTTGGAGACAACAGAGCGAGACTCCGTCTCA

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FIGURE 4449

TCCTCTCGGCGTTTCCGCTGTCAGGGCCTGCGGTGTGACTCGCGGGCTCAGCTGGTCCGGCCGTAGCACCTCCG
CGCCGTCGCCATGTCGCGGTTTTTCACCACCGGTTTCGGACAGCGAGTCCGAGTCGTCCTTGTCCGGGGAGGAGCT
CGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAG
AGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAA
GATTCGTGATGTCACCAAGTGCCTGGAAGAGTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGT
GGACAAAGAAGGTGTCCCCCGTTCTATATCCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGA
AGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGAGCACCTTGGCTCAGAAGATCCGAAA
ATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGA
GAAAAATGAGGAGGATTGAGAAGGCTCTTCAGATGAGGATGAGGATGAGGACGGAGTCAGTGTGCAACTTTCTT
GAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCTTCAAAAAGATGGATGATGAAGATGAGGACTC
AGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGG
GAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAA
GAAACGGGAGGACAAAGCTAAGAAGAAGCACGACAGGAAAATCCAAGCGCTGGATGAGGAGGAGGAGGACAATGA
AGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGAAGCCAAAATGTTTGCCAAGGGAAC
TGAGATCACCCATGCTGTTGTTATCAAGAACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAAGTATCG
TGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTGAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGT
CAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGAT
GTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTGCAAAATCCCAACATTTTTGTTGGAGA
GAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGCGTGTCCGTGTCATCTTAACCTCT
GGTGAACGAATGGATGAAGAATTTACCAAAATAATGCAAAATACTGACCCCTCACTCCCAAGAGTACGTGGAGCA
CTTGAAGGATGAGGCCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGA
GGAGGTCTGCCGCATCTACCTGCTGCGCATCTGACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACA
GCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGAGGAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
GATGGAGAGACTGTGCAAGTACATCTACGCAAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCA
CATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCCGACCTCATGCTCATGAGCCACTTGCAGGACAA
CATTACAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGGTGCAGCTGGGCATCTGTGCCCTCCG
CCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGAGTGGCCGAGCCAAGGAGCTTCTGGG
CCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
CTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGTCTGCCATGCTCCTGGAGATCCCCTA
CATGGCCGCCCATGAGAGCGATGCCCCGCCGACGCATGATCAGCAAGCAGTTCCACCACCAGCTGCGCGTGGGCGA
GCGACAGCCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCTGCTGCCATGCTCCTGGAGATCCCCTA
TGACTGGAAGACCTGTACAGTTTTATCATCAATGAGAAGATGAATGGGAAAGTGTGGGACCTTTTCCCCGAGGC
TGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGAGGACCTACCTCTTACCTACAGCAG
TGTCTATGACTCCATCAGCATGGAGACGCTGTGAGACATGTTTGAGCTGGATCTGCCACTGTGCACTCCATCAT
CAGCAAAATGATCATTAAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAACACAGACAGTGGTGTGACCCGCAC
TGAGCCCACTGCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGGGCAGCCTGGTGGAGAACAACGAACG
GGTGTGTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGAAGGACGGCTACCGCAAAAACGAGGG
CTACATGCGCCGCGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACTTGAGCTCTCCACTCTGTTTCCGCGCT
GGGCCATCCAACCTTGAAGTCTTAAACCACACCTCAGTCACTAAAGGTCTGTTTAAAGTTGTTCTGGTTGATTGC
TTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATACTTCTGAGCTGCTACCACATGACAGACACA
AGGCTCAGATGAAGAGGTGAATTGAAC

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FIGURE 4450

MSRFFTTGSDSESESSLGEEELVTKPVGGNYGKQPLLLSEDEEDTKRVVRSADKRFEELTNLIRTIRNAMKIRD
VTKCLEEFELLGKAYGKAKSIVDKEGVPRFYIRILADLEDYLNELWEDKEGKKKMKNNAKALSTLRQKIRKYNR
DFESHITSYKQNPESADEDAEKNEEDSEGSSDEDEDEDGVSAATFLKKKSEAPSGESRKFLKKMDEDEDSEDS
EDDEDWDTGSTSSDSDSEEEEGQTALASRFLKKAPTDEDKKAEEKKREDKAKKKHDKSKRLDEEEDNEGGE
WERVRGGVPLVKEKPKMFAKGTEITHAVVIKKLNEILQARGKKGTDRAAQIELLQLLVQIAAENNLGEGVIVKIK
FNI IASLYDYNPNLATYMKPEMWGKCLDCINELMDILFANPNIFVGENILEESEN LHNADQPLRVGCILTIVER
MDEEFTKIMQNTDPHSQEYVEHLKDEAQVCAI IERVQRYLEEKGTTEEVCRIYLLRILHTYYKFYKAHQRLTP
PEGSSKSEQDQAENEGEDSAVLMERLCKYIYAKDRTDRITCAILCHIYHHALHSRWYQARDLMLMSHLQDNIQH
ADPPVQILYNRTMVQLGICAFRQGLTKDAHNALLDIQSSGRAKELLGQGLLLRSLQERNQEQEKVERRRQVPFHL
HINLELLECXYLVSAMLEIPYMAAHESDARRRMI SKQFHHQLRVGERQPLGPPEMREHVVAASKAMKMGDWK
TCHSFI INEKMNGKVWDLFPEADKVRTMLVRKIQEESLRTYLFYSSVYDSISMETLSDMFELDLPVHSIISKM
IINEELMASLDQPTQTVVMHRTEPTAQQNLALQLAEKLGSLVENNERVFDHKQGTYYGGYFRDQKDGyrkNEGYMR
RGGYRQQQSQTAY

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FIGURE 4451

GTGCATGCCGTGGGTCTGACGGCTTGAGTAGCGCTAGGGAGAATCCCTGCAGGTAATATTTGACTTTTGCTTCAT
ATTAATCTGAGTGGAAAATAAAAGGGCCCTCTTCTCCTCTCGCTTCCCTGCCGGGCAGGCGCCATGGCGGAAGCC
TCGGCGACGGGCGCCTGCGGAGAGGCGATGGCAGCGGCGGAAGGCTCCTCGGGCCCCGGCGGGCTTGACTCTGGGC
CGGAGCTTCTCGAACTACCGGCCCTTCGAGCCCCAGGCGTTGGGCTCAGCCGAGCTGGCGGCTGACGGGCTTC
TCCGGCATGAAGGGCTGAGGCTGCAAGGTCCCCGAGGAGGCGCTGCTCAAACCTCCTGGCGGGACTGACGCGGCCG
GACGTGCGGCCCCCGCTGGGCGGGGCCCTGGTGGGTGGCCAGGAAGAGGCGTCCCAGGAAGCCGGCCTGCCGGCA
GGAGCGGGCCCCAGCCCCACCTTTCCAGCCCTGGGCATCGGGATGGACTCCTGCGTCATCCCCCTGAGGCACGGG
GGCCTGTCACTGGTGCAGACCACGGACTTCTTTTACCCCTTGGTAGAAGATCCCTACATGATGGGGCGCATAGCT
TGTGCCAACGTGCTGAGTGACCTCTACGCCATGGGGATTACTGAGTGTGACAACATGTTGATGTTACTCAGCGTC
AGCCAGAGTATGAGTGAGGAGGAACGCGAAAAGGTAACGCCACTCATGGTCAAAGGCTTTCCGGATGCGGCTGAG
GAAGGAGGGACGGCAGTGACCGGTGGGCAAACGGTGGTCAACCCCTGGATTATAATCGGTGGAGTTGCCACTGTA
GTATGCCAACCAAATGAGTTTATAATGCCGGACAGCGCGCTCGTTGGGGACGTGCTGGTGTAAACCAAACCGTTA
GGAACCCAGGTTGCTGTCAATGCCACCAATGGCTGGATAATCCTGAAAGATGGAATAAAGTAAAGATGGTGGTC
TCCAGAGAAGAGGTGGAGCTGGCCTATCAGGAAGCCATGTTCAATATGGCTACCCTCAACAGAACTGCTGCAGGT
TTAATGCACACATTTAATGCCCATGCGGCCACAGATATCACAGGCTTTGGCATCTAGGACACTCCCAGAACCTT
GCAAAACAACAAAGAAATGAAGTGTCTTTGTTATTCTATAATCTGCCAATAATTGCCAAGATGGCTGCCGTCAGC
AAGGCCAGTGGACGGTTTGGGCTTCTTCAAGGAACCTCAGCTGAAACCTCTGGGGGATTACTGATTTGTCTGCCA
AGAGAACAGGCGGCTCGCTTTTGTCTGAAATCAAATCCTCCAAGTACGGAGAGGGTCACCAAGCGTGGATCGTT
GGCATTGTGGAAGGAAACCGAACGGCCCGGATCATTGACAAGCCGCGAGTTATTGAAGTCTCGCTCGTGGG
GCCACAGCTGCTGTTCTTGCTCCTGACAGTTCAAATGCCTCCTCTGAGCCTAGCTCGTGAGATGAAAGAACAGAA
GTTGTTTGGACCTTAGAGCCATTGTCCACAATCACGGATGGTTCTCAAGAGTTGATTGTAAGAAATTTCCAAAGA
AGGCTGCCTGCATAGTGGTTCCGGCTGCCCTTTCTAGGTGATTGGAATCAGCCCATCTAAAGCAGTCTTTATATG
CATTCCGAGGCCAGAGTAACATTTTGAACCTTTGGGGGGATATTTGTTTCATCACTTGGGTAGAAGAGGAGCAAAAA
TACTTCTGTTTTCTCTTGCCAAAGTAAGATGAAGCTATTCCAGGTTGAGGGATTTTCTTTGCACGGGGTTGATT
AATTTCTGCACAGGGAGTGAGATTATTAAAGTAACACACACACAAAGTAAATTGCAAAATGAAAAAATTAGAAG
CAAATGAGTTTTGGACCAATATTGTTGATAAATCTAAATTGTTAAGAGAGATCTTATAATGCAACATCAAATTCT
TTATTCAATTTTACTGAAGTACTGGCTCTTTCCTGCTCTGGACAAGAATTGAGCAACTTGTCTGATGACTGGGAA
AGGAGGACCTGCAACCATCTGACTTGGTCTCTGTTAATGACGTCTCTCCCTCTAAACCCCATTAAGGACTGGGAG
AGGCAGAGCAAGCCTCAGAGCCCAGGCCTCAGTGGTCATTAAGATGTTAAGTCTTTTGGCGCAGATTCTGTTGA
TTTGATCAATAAAGAGTAATTTCTTGCTAAATAAATAAAGAAACCTTGTGAAAACTAAAAAAAAAAAAAAAA
AAA

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FIGURE 4452

GGSLGDGRLRRGDGSGGRLLGPGGLDSGPELLELPALRAPGVGPQPELAADGLLRHEGLRGCKVPQEALLKLLAG
LTRPDVRPPLGRGLVGGQEEASQEAGLPAGAGPSPTFPALGIGMDSCVIPLRHGGLSLVQTDDFFYP LVEDPYMM
GRIACANVLS DLYAMGITECDNMLMLLSVSQSMSEEEEREKVTPLMVKGFRDAAEEGGTAVTGGQTVVNPWIIIGG
VATVVCQPNEFIMPDSAVVGDVLVLT KPLGTQVAVNAHQWLDNPERWNKVKMVVSREEVELAYQEAMFNMATLNR
TAAGLMHTFNAAHAATDITGFGILGHSQNLAKQQRNEVSFVIHNLPIIAKMAAVSKASGRFGLLQGTS AETSGGLL
ICLPREQAARFCSEIKSSKYGEGHQAWIVGIVEKGNRTARIIDKPRVIEVLPRGATAAVLAPDSSNASSEPS

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FIGURE 4453A

CCTCTTTCACCCTGTCTAGGTTGCCAGCAAATCCCACGGGCCTCCTGACGCTGCCCCCTGGGGCCACAGGTCCCTC
GAGTGCTGGAAGGATGAAGGATTCTGTCATCACTGTGATGGCCATGGCGCTGCTGTCTGGGTTCTTTTCTTCGC
GCCGGCTCGAGCTACAACCTGGACGTGCGGGGCGCGCGGAGCTTCTCCCCACCGCGCGCCGGGAGGCACCTTGG
ATACCGCGTCTCTGAGGTGCGAAACGGGGTCATCGTGGGAGCTCCAGGGGAGGGGAACAGCACAGGAAGCCTCTA
TCAGTGCCAGTCGGGACAGGACACTGCCTGCCAGTCACCCTGAGAGGTTCCAACCTATACCTCCAAGTACTTGGG
AATGACCTTGGCAACAGACCCACAGATGGAAGCATTTTGGCCTGTGACCCTGGGCTGTCTCGAACGTGTGACCA
GAACACCTATCTGAGTGGCCTGTGTTACCTCTTCCGCCAGAATCTGCAGGGTCCCATGCTGCAGGGGCGCCCTGG
TTTTCAGGAATGTATCAAGGGCAACGTAGACCTGGTATTTCTGTTTGATGGTTCGATGAGCTTGCAGCCAGATGA
ATTTCAAAAAATCTGGACTTCATGAAGGATGTGATGAAGAACTCAGCAACACTTCGTACCAGTTTGTCTGTCT
TCAGTTTTCACAAGCTACAAAACAGAATTTGATTTCTCAGATTATGTTAAATGGAAGGACCCTGATGCTCTGCT
GAAGCATGTAAAGCACATGTTGCTGTTGACCAATACCTTTGGTGCCATCAATTATGTCGCGACAGAGGTGTTCCG
GGAGGAGCTGGGGGCCCCGCCAGATGCCACCAAAGTGCTTATCATCATCACGGATGGGGAGGCCACTGACAGTGG
CAACATCGATGCGGCCAAAGACATCATCCGCTACATCATCGGGATTGGAAGCATTTTCAGACCAAGGAGAGTCA
GGAGACCCTCCACAAATTTGCATCAAAACCCGCGAGCGAGTTTGTGAAAATTCTGGACACATTTGAGAAGCTGAA
AGATCTATTCACTGAGCTGCAGAAGAAGATCTATGTCAATTGAGGGCACAAGCAAACAGGACCTGACTTCCTTCAA
CATGGAGCTGTCTCCAGCGGCATCAGTGCTGACCTCAGCAGGGGCCATGCAGTCGTGGGGGCGAGTAGGAGCCAA
GGACTGGGCTGGGGGCTTTCTTGACCTGAAGGCAGACCTGCAGGATGACACATTTATTGGGAATGAACCATTGAC
ACCAGAAGTGAGAGCAGGCTATTTGGGTTACACCGTGACCTGGCTGCCCTCCCGGCAAAGACTTCGTTGCTGGC
CTCGGGGACCCCTCGATACCAGCACATGGGCCGAGTGCTGCTGTTCCAAGAGCCACAGGGCGGAGGACACTGGAG
CCAGGTCCAGACAATCCATGGGACCCAGATTGGCTCTTATTTCCGTGGGGAGCTGTGTGGCGTCGACGTGGACCA
AGATGGGGAGACAGAGCTGCTGCTGATTGGTGCCCCACTGTTCTATGGGGAGCAGAGAGGAGCCGGGTGTTTAT
CTACCAGAGAAGACAGTTGGGGTTTGAAGAAGTCTCAGAGCTGCAGGGGGACCCCGGTACCCACTCGGGCGGTT
TGGAGAAGCCATCACTGCTCTGACAGACATCAACGGCGATGGGCTGGTAGACGTGGCTGTGGGGCCCCCTCTGGA
GGAGCAGGGGGCTGTGTACATCTTCAATGGGAGGCACGGGGGCTTAGTCCCCAGCCAAGTCAGCGGATAGAAGG
GACCCAAGTGCTCTCAGGAATTCAGTGGTTTGGACGCTCCATCCATGGGGTGAAGGACCTTGAAGGGGATGGCTT
GGCAGATGTGGCTGTGGGGCTGAGAGCCAGATGATCGTGCTGAGCTCCCGGCCGTGGTGATATGGTCACCTT
GATGTCTTCTCTCCAGCTGAGATCCCAGTGATGAAGTGGAGTGCTCCTATTCAACAGTAACAAGATGAAAGA
AGGAGTTAATATCACAATCTGTTTCCAGATCAAGTCTCTCATCCCCAGTTCCAAGGCCGCTGGATTGCCAATCT
CACTTACACTCTGCAGCTGGATGGCCACCGGACCAGAAGACGGGGTTGTTCCAGGAGGAGACATGACACTCAG
AAGGAATATAGCTGTACCACCAGCATGTCTGCACTGACTTCTCATTTCATTTCGCGTATGTGTTCAAGACCT
CATCTCCCCCATCAATGTTTCCCTGAATTTCTCTCTTTGGGAGGAGGAAGGGACACCGAGGGACCAAAGGGCGCA
GGGCAAGGACATACCGCCCATCTGAGACCCTCCCTGCACTCGGAAACCTGGGAGATCCCTTTTGAGAAGAACTG
TGGGGAGGACAAGAAGTGTGAGGCAAACCTGAGAGTGCTCTTCTCTCTGCAAGATCCAGAGCCCTGCGTCTAAC
TGCTTTTGCCAGCCTCTCTGTGGAGCTGAGCCTGAGTAACCTGGAAGAAGATGCTTACTGGGTCCAGCTGGACCT
GCACTTCCCCCGGACTCTCCTTCCGCAAGGTGGAGATGCTGAAGCCCCATAGCCAGATACCTGTGAGCTGCGA
GGAGCTTCTGAAGAGTCCAGGCTTCTGTCCAGGGCATTATCTTGCAATGTGAGCTCTCCCATCTTCAAAGCAGG
CCACTCGGTTGCTCTGCAGATGATGTTTAATACTGGTAAACAGCTCCTGGGGGGACTCGGTTGAATTGCACGC
CAATGTGACCTGTAACAATGAGGACTCAGACCTCCTGGAGGACAACCTCAGCCACTACCATCATCCCCATCCTGTA
CCCCATCAACATCCTCATCCAGGACCAAGAAGACTCCACACTCTATGTGAGTTTACCCCCAAAGGCCCAAGAT
CCACCAAGTCAAGCACATGTACCAGGTGAGGATCCAGCCTTCCATCCACGACCACAACATACCCACCCTGGAGGC
TGTTGGTTGGGGTGCCACAGCCTCCCAGCGAGGGGCCCATCACACACCAGTGGAGCGTGAGATGGAGCCTCCCGT
GCCCTGCCACTATGAGGATCTGGAGAGGCTCCCGGATGCAGCTGAGCCTTGCTCTCCCGGAGCCCTGTTCCGCTG
CCCTGTTGTCTTCAGGCAGGAGATCCTCGTCCAAGTGATCGGGACTCTGGAGCTGGTGGGAGAGATCGAGGCCTC
TTCCATGTTTCAGCCTCTGCAGTCCCTCTCCATCTCCTTCAACAGCAGCAAGCATTTCCACCTCTATGGCAGCAA
CGCCTCCCTGGCCAGGTTGTATGAAGTTGACGTGGTGATGAGAAGCAGATGCTCTACCTCTACGTGCTGAG
CGGCATCGGGGGGCTGCTGCTGCTGCTCATTTTCATAGTGCTGTACAAGTTGGTTTCTTCAAACGGAACCT
GAAGGAGAAGATGGAGGCTGGCAGAGGTGTCCCGAATGGAATCCCTGCAGAAGACTCTGAGCAGCTGGCATCTGG
GCAAGAGGCTGGGGATCCCGGCTGCCGCTGAAGCCCCCTCCATGAGAAGGACTCTGAGAGTGGTGGTGGCAAGGACTG

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FIGURE 4453B

AGTCCAGGCCTGTGAGGTGCAGAGTGCCCAGAACTGGACTCAGGATGCCCAGGGCCACTCTGCCTCTGCCTGCAT
TCTGCCGTGTGCCCTCGGGCGAGTCACTGCCTCTCCCTGGCCCTCAGTTTCCCTATCTCGAACATGGAACCTCATT
CCTGCCTGTCTCCTTTGCAGGCTCATAGGGAAGACCTGCTGAGGGACCAGCCAAGAGGGCTGCAAAAGTGAGGGC
TTGTCATTACCAGACGGTTCACCAGCCTCTCTTGGTTTCCTTCCTTGGAAGAGAATGTCTGATCTAAATGTGGAG
AAACTGTAGTCTCAGGACCTAGGGATGTTCTGGCCCTCACCCCTGCCCTGGGATGTCCACAGATGCCTCCACCCC
CCAGAACCTGTCTTGCACACTCCCCTGCACTGGAGTCCAGTCTCTTCTGCTGGCAGAAAGCAAATGTGACCTGT
GTCACTACGTGACTGTGGCACACGCCTTGTTCTTGGCCAAAGACCAAATTCCTTGGCATGCCTTCCAGCACCCCTG
CAAAATGAGACCCCTCGTGGCCTTCCCCAGCCTCTTCTAGAGCCGTGATGCCTCCCTGTTGAAGCTCTGGTGACAC
CAGCCTTTCTCCCAGGCCAGGCTCCTTCCTGTCTTCCTGCATTACCCAGACAGCTCCCTCTGCCTGAACCTTCC
ATCTCGCCACCCCTCCTTCCTTGACCAGCAGATCCCAGCTCACGTCACACTTGGTTGGGTCTCACATCTTTCAC
ACTTCCACCAGCCTGCACTACTCCCTCAAAGCACACGTCATGTTTCTTCATCCGGCAGCCTGGATGTTTTTCCC
TGTTTAATGATTGACGTACTTAGCAGCTATCTCTCAGTGAAGTGTGAGGGTAAAGGCTATACTTGTCTTGTTTAC
CTTGGGATGATGCCTCATGATATGTCAGGGCGTGGGACATCTAGTAGGTGCTTGACATAATTTCACTGAATTAAT
GACAGAGCCAGTGGGAAGATACAGAAAAAGAGGGGCTGGGCTGGGCGCGGTGGTTCACGCCTGTAATCCCAGCAC
TTTGGGAGGCCAAGGAGGTGGATCACCTGAGGTGAGGAGTTAGAGGCCAGCCTGGCGAAACCCCATCTCTACTA
AAAATACAAAATCCAGGCGTGGTGGCACACACCTGTAGTCCCAGCTACTCAGGAGGTTGAGGTAGGAGAAATTGCT
TGAACCTGGGAGGTGGAGGTTGCAGTGAGCCAAGATTGCGCCATTGCACTCCAGCCTGGGCAACACAGCGAGACT
CCGTCTCAAGGAAAAAATAAAAATAAAAAGCGGGCACGGGCCCGTGACATCCCCACCCTTGGAGGCTGTCTTCTC
AGGCTCTGCCCTGCCCTAGCTCCACACCCTCTCCCAGGACCCATCACGCCTGTGCAGTGGCCCCCACAGAAAGAC
TGAGCTCAAGGTGGGAACCACGTCTGCTAACTTGGAGCCCCAGTGCCAAGCACAGTGCCTGCATGTATTTATCCA
ATAAATGTGAAATTCTGTCC

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FIGURE 4454

CGCGCTGGAGAGGCGCGGGGTCAAGACGTCCGGCCTCGGGGGCCCGGGCTGGGCCGCCGAGTCCCCTGGGCGGCG
CTGAGCGGGCGGGAGGCGGGGGGCCCGCGGCTCGGGGCAACCGAGGCCGGGTGCGGGGATCGGCCGCCATCGCCGC
CGCCGCTGCACTGGGAGCCCGCGGGGATGGAGCGGGAGGCGTTGCCGTGGGGCTCGAGCCCCAGGATGTGCAGA
GTTCTGACGAAATGAGGAGCCCCGAAGGGTACCTCAGAGGCAACATGAGTGAGAAATGAGGAAGAGGAAATTTCTC
AGCAAGAAGGCAGTGGGGACTATGAAGTCGAAGAGATACCATTTGGGCTTGAACCCAGAGCCCTGGGTTTGAGC
CACAAAGCCCAGAGTTTGAACCCCAAAGCCCCAGATTTGAGCCTGAAAGCCCCGGGGTTTGAGTCCCCGAAGCCCTG
GGCTTGTGCCCCCAAGCCCTGAGTTTGCACCCAGAAGCCCTGAATCAGATTCTCAGAGCCCTGAGTTTGAATCCC
AGAGCCCTAGGTATGAACCCCAAAGCCCTGGCTATGAACCTCGGAGCCCCGGGTATGAACCCCGGAGCCCTGGCT
ATGAATCTGAGAGCTCTAGATATGAATCCCAAGAACTGAGCTCAAAACCCAAAGCCCAGAATTTGAAGCTCAAA
GTTCCAAATTCCAGGAAGGTGCGGAGATGCTTCTGAACCCCGACGAAAAGAGTCCTTTGAATATCTCCGTAGGAG
TTCACCCCTGGACTCCTTCACTCAGGGGTTTGGGGAGCAGCCACAGGGGACCTGCCCATAGGGCCACCTTTTG
AGATGCCACAGGGGCCCTGCTGTCTACACCGCAGTTTGAGATGCTTCAGAAATCCCCTGGGTCTCAGAGAGCCC
TTCGAGGTCCAGGTGCGCGGGGTGGCCGGGCCAGGGGTGGGCAGGGCCCTCGGCCTAACATCTGCGGCATCTGCG
GGAAGAGCTTCGGGCGGGGCTCCACCCTGATCCAGCACCAGCGCATCCACACCGGTGAGAAGCCCTACAAATGTG
AGGTCTGCAGCAAGGCCTTCTCCAGAGCTCTGACCTCATCAAAACACAGCGCACCCACACTGGCGAGCGGCCCT
ACAAATGTCCCCGTTGCGGCAAGGCCTTCGCCGACAGCTCTTACCTGCTTCGCCACCAGCGCACTCACTCTGGCC
AGAAGCCCTACAAGTGCCACATTGTGGCAAGGCCTTCGGCGACAGCTCCTACCTCCTGCGACACCAGCGCACCC
ACAGCCACGAGCGGCCCTACAGCTGCACCGAGTGCGGCAAGTGCTATAGCCAGAATCGTCCCTGCGCAGCCATC
AGAGGGTGCACACCGGTACAGAGCCCTTCAGCTGTGGCATCTGCGGCAAGAGCTTCTCCACCGGTGCGCCCTTA
TCCCCCATGCCCCGACGCCACGCCCGGGAGAAGCCCTTCAAGTGCCCTGAGTGCGGCAAGCGCTTTGGCCAGAGCT
CGGTGCTGGCCATCCACGCCCGCACCCACCTGCCAGGCCGCACCTACAGCTGCCCCGACTGCGGCAAGACCTTCA
ATCGCTCCTCCACTCTCATCCAGCACCAGCGCTCCACACGGGCGAGCGGCCCTACAGGTGCGCCGTGTGCGGCA
AGGGCTTCTGCCGCTCCTCCACGCTTCTGCAGCATCACGGGTCCACAGTGCGGAGCGGCCCTTACAAGTGCGATG
ACTGCGGAAAGGCCTTCTCCAGAGCTCCGACCTCATCCGCCACCAGCGGACCCACGCGGCGGGCCGGCGCTGAC
CTGGGGCCCCAGCAGGGGTGGGAGGTGTGGGCAGAAGATAAGGGGGCCAGGGAGCTAGAGGAACCTTTAGGGAGGA
TAGTGGAAGAAGCCGACAGGAGAATGGAGGAGCTGAGGATGCTGGAAGAAGAGAACCAGGGTGGAGGAAGTGACATG
CCCTGGAGACTTGTGGGAAGTGGGTGGAGGGAGGCCAGGCCGGCAGCGGGAGGCCCTGGGAGAAATGGAGAGAG
GTCAGCGGAGGGCTGGCCTCAGCCGCGGCTCCTTGGTGGGTGCCTGGCTTGGCAACTGCTAGAGCAGGGAGGGGG
GAGGGCAGGGGATTACCTAATTAGAGTGGGTAGCTTAGATTGGTAGCTGCTGAAACTCTCGTTGAGTCAGGAGC
GGGTAAAAGGTAGGTGGGGTGGGGAGTGGGGCCCCGGGTGGGGCCTGGGCCTCTGCGTGCAAACCCAGCCTCC
CTCTTCTTCTCAGGCTTTGGAGCCCTGAGTTTGAAGTTCAATAAAAACCTTTATGTGGTAAAAAAAAAAAAAA

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FIGURE 4455

MRSPEGYLRGNMSENEEEEISQQEGSGDYEVEEIPFGLPEQSPGFEFQSPFEFEPQSPRFEPESPGFESRSPGLVP
PSPEFAPRSPESDSQSPEFESQSPRYEPQSPGYEPRSPGYEPRSPGYESESRYESQNTLKTQSPEFEAQSSKF
QEGAEMLLNPDEKSPLNISVGVHPLDSFTQGFGEQPTGDLPIGPPFEMPTGALLSTPQFEMLQNPLGLTGALRGP
GRRGGRARGGQGRPNICGICGKSFGRGSTLIQHQRHTGKPYKCEVCSKAFSQSSDLIKHQRHTHTGERPYKCP
RCGKAFADSSYLLRHQRTHSGQKPYKCPHCGKAFGDSSYLLRHQRTHSHERPYSCTECGKCYSQNSSLRSHQRVH
TGQRPFSCGICGKSFSQRSALIPHARSHAREKPFKCPECGRFGQSSVLAIHARTHLPGRTYSCPDGKTFNRSS
TLIQHQRSHHTGERPYRCAVCGKGFCRSSTLLQHHRVHSGERPYKCDDCGKAFSQSSDLIRHQRTHAAGRR

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FIGURE 4456

GGCACGAGGCTTTCTCGGGCGCAGGAGGTTCCGCAGGCCAGGCCAGGCCAGGGGAGGCAGCCGATCCGTCGTCG
GGGTTGACAGTTACCATGCGCGCCGCTCTGGCCCCGCTCCCTCCCCGGGACCCAAACGGGGCCGGACCCGAGTGG
AGGGAGCCGGGGGCTGTGAGCTTCGCGGACGTGGCCGTGTACTTCTGCCGGGAGGAGTGGGGCTGCTTGCGGCCA
GCGCAGAGGGCCCTGTACCGGGACGTGATGCGGGAGACCTACGGCCACCTGAGCGCTCTCGGAATCGGAGGCAAC
AAGCCAGCTCTCATCTCCTGGGTGGAGGAGGAGGCCGAACGTGGGGTCCGGCTGCCAGGATCCGGAGGTGGCG
AAATGTCAGACACAAACGGACCCAGCAGATTCAGAAACAAGAAAAAGGAAAGACAAAGGGAAGGGACGGGAGCC
CTGGAGAAAGCCCGACCTGTGGCCGCGGGTCTCCTGGGCTGAAGTCTCCCCAAGCCCCCTCGGCCGGGCCCCCT
TATGGTTGGGAGCAGCTGTCCAAGGCACCGCACCGGGGACGCCCCCTCCCTCTGTGCCACCCCCCTGTCCCCGA
GCTGACCAGCGTCATGGCTGTCTACGTGTGCGGGAAGAGCTTTGCCTGGCGCTCCACACTGGTGGAGCACGTCTAC
AGTCACACTGGCGAGAAGCCCTTCCACTGCACTGACTGCGGCAAGGGCTTCGGCCACGCTTCCTCCCTGAGCAAA
CACCGGGCCATCCATCGTGGGGAGCGGCCCCACCGCTGTCTGGAGTGTGGCCGGGCCTTCACGCAGCGCTCGGCG
CTGACTTCGCACCTGCGCGTCCACACCGGCGAGAAACCTATGGCTGCGCCGACTGTGGCCGCGCTTCAGCCAG
AGCTCTGCCCTCTACCAGCACCGGCGCGTGCACAGCGGCGAGACCCCCCTCCCTGCCCCGACTGTGGCCGCGCC
TTCGCCTACCCCTCGGACCTGCGGCGCCACGTGCGCACCCACACCGGCGAGAACCCCTACCCGTGCCCGGACTGC
GGGCGCTGCTTCCGCCAGAGCTCGGAGATGGCAGTCCACAGGCGCACCCACAGCGGCGAGAAGCCCTACCCCTGC
CCGAGTGGCGCCGCCGCTTTGGCCAGAAGTCAGCCGTGGCCAAACACCAAGTGGGTTCATCGGCCCGGGGCGGG
GGCCACAGGGGCGGGTTCGCCGGGCGTCTGTCTGTGACCTGACCCCTGGCCACGGAGACCTGGACCCGCCCGTG
GGCTTCCAGCTGTACC CGGAGATATTCAGGAGTGTGGGTGACGGCCTTAAAAGTGACTATCTAGACATTACGGG
AGGCCCCAGATGGGCTCAGGGGCCGAACCTCTGCGGCGGCTGCAGGGAGGTCCAGAATCTAGGGCAAGAGCT
GGCCCTGGGGTGGGACAGTCTGATCTTGGGCCCTTAGCAGCCTCCTCTGCCAGCACCTTGCTCCCCACTGCCCA
GGGCTCTCCAAGGCCCTCTACTGAGGCAGGCTGAGTTGAGAACCCCCAGACCTACATAAGGGGAACCAAAAG
CTGTTTCTCAGCCAGAGGTGCTAAGAGGACTGAGGTAGAGGAGAACCTTGTTTACCCATTGTCTTTTAAATT
TTTTATCATTATTTTTATTCTTGTGACCCCTCCAGAACACAATACTCATTGTCTTTTATTTATTTATTTATTTA
TTTCTGAGACAGCTTCCTGCTCTGTCAACCCAGGCTGGAGTGCAGTGGTGTGAACAGGGCTAACTGCAGCCTCAAC
CTGCAGTGCTCAAGGAATCCTCTCCCATCAGCCTTCCAAATATCTGAGACTACAGGCGGGCAACACTACGGCCAG
CTAATTTTTAAATTTTACATAGAGATGAGGTTCTCACTGTTGTCCAGGCTGGTCTCAAACCTCCTTGGCTGAAGTG
ATCCTGTCTGCTCGGCTTCCGCAAGTGCTGGGATTACAGGCGTGAGCTACCACCATGCCTGGCTTCCATTGTCTT
TGTTGTGTGTGTGTGTGTGATGGGGTTTTGCTCTTGTGTTGCCAGGCTGGAGTGCAATAGCGCAATCTCAGCTCACT
GCAACCTCTGCCTCCAGAGTTCAAGCAATTCTCCTTCCCTCAGCCTCCCAAGTAGCTGGGACTACAGGCACCCACC
ACCTCCATTGTCTTTTTACTGCCCAAGTTAAATCCTGTGACTGTGTACTGGATCTGGCCTGCGGTTGTCTATATT
TATTGATCTGAGTCCAGGCAGTGTTTTTAAGTGATATGAGTTAGTAGTGAATAATTGAAAAGGATATTTTACAACC
AAATACAGGTTTTCTGGTGTCTTTTGAAAATCCAAAGATTTGGCAACTCGACCTAGGCTCCGACAAAACACAG
TTGTTGGGAGCTGAGCCGGAGCCAGAATCACAATTCACCGTGGCCCGGCCACCCATCCCCACCACTCCCGTGGG
CTCCTGACCAAGCACACGTGCCATTATCATGGCTTGCTTTTAGTGTTTTGGTGTTTATCTTAAAGTACAGCG
AAGAAGAAAGGGAAGTATTTCTTAGACCCATGTCTCTGTCCAAATAGGCCTTTCCATCTGGCATTTCGCGCTCAT
TTATATGACTTGCTGAGTTCCTATGGTCATTTGAGTTTGCAAACAGTGGTCTGTAGCACTCAGGTTTTCTGGAGT
TGGAGAGAAAGGTGGCAAGAGAGAAGTAAAAGTTGGTTTTATTTTAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4457

MAPPLAPLPPRDPNGAGPEWREPGAVSFADVAVYFCREEWGCLRPAQRALYRDVMRETYGHLALSALGIGGNKPALI
SWVEEEAELWGPAAQDPEVAKCQTQTDPADSRNKKKERQREGTGALEKPDFVAAGSPGLKSPQAPSAGPPYGWEQ
LSKAPHRGRPSLCAHPPVPRADQRHGCYVCGKSFWRSTLVEHVYSHTGEKPFHCTDCGKGFGHASSLSKHRATH
RGERPHRCLECGRAFTQRSALTSRLRVHTGEKPYGCADCGRRFSSQSSALYQHRRVHSGETFFPCPDCGRAFYPS
DLRRHVRTHTEKPYPCPDCGRRCFRQSSEMAVHRRTHSGEKPYPCPQCGRRFQKSAVAKHQVWHRPGAGGHRGR
VAGRLSVTLTPGHGDLDPVGFQLYPEIFQECG

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FIGURE 4458

CTGGGGATCTACGCTGAGTTCTGGAGATGCTCCAGCTCGGGCCGCCCTGTCTGAGCGGAGCTTTGCGGCGCTGAA
GCTTACAGGGGAAGGAAAAGCCTCGCCCGGCGTCTGATTGGCGGAACCGCGCTGCCCGAGCCTGGGATTCCCCAG
GGACCCCCCGGAGCCGCCGCGTCTCCCATGGACTTGCCCGGGGACTCCAGCCCGCCTGGCCAGCCGCGTCTGTG
CCGCCAGCCTCTGACTCGAGCATTATGGGGAGCCAGGAGCCCCGAAACGGCCGAGGCTGCAGCTCCCGGGGGCCCC
TTCTCCCCTGGAAGAGGCTCTCGGCGGGTCTTGCCGTGGTGCTAGAAGATGTCATGGCTGTTACATGGTCCC
CGTGGTGCCCTCAAAGCAGACCTCCATACCACAGCACACAGCTACCATCAGGATCCTGTCCACAGGCAGCCGCC
TGCCCTCGCCACCCCGGAGCCGGGTGGTCCCTCGCAGGCCAGGCCTCCCGACCCTCTGTGTTTGTGTGCGGAGCC
CTTGAGCCGCATCCACCGGACCTCTTCCACCCTGAGGCGGCGATCAAGGACAACCCCTGGCCCAGAGGAGGGCCC
TTCACAAAAGGTGGACCGGGCCCCCAGCCCCACCTGGTGGTGATGCTGGAAGACATCGCCAGTCTTAGACCCCC
CGCTGAGGGCTTCATTGATGAGACCCCCAACTTCATCATCCAGCACAAAGAGCTGAGCCCATGAGGATAGTTTCG
CCAGCCAACGCCTCCACCTGGGGACCTAGAACCCCCATTCAGCCATCTGCTCTGCCTGCAGACCCTCTGGAGAG
CCCACCAACAGCCCCAGATCCTGCTCTGGAGCTCCCATCCACCCACCACCGTCCAGCCTTTTACGCCCCCGCT
CAGTCCCTGGGGCTTGGCCCCGCTCTTCCGTTCCGTCCGCTCCAAGCTGGAGAGCTTTGCTGACATCTTCCTCAC
GCCCAACAAAACCCACAGCCCCACCCCGTCCCCCCTAATGAAGCTGGAGTTGAAGATCGCCATCTCAGAGGC
CGAGCAGTCTGGGGCTGCTGAGGGCACTGCGTCTGTCAGCCCCCGGCCCAATCCGCCAGTGGCGAACTCAGGA
CCACAATACCCAGCACTTCTCCCTAAGCCCTCTCTGGGCCGAAGCTACTCCTGCCCTGATCTGGGGCCCCCTGG
CCCAGGTACCTGCACCTGGCCACCTGCTCCACCCCAACCAAGCCGACCACGGCCGCGGCGGCACACTGTGGGTGG
TGGGGAATGGCCCGAGCCCCGCCACCCCTCGGCCCTGTCTCCGGAAGAGGTCTTCCCTCTCGGAGGAGTGGG
AGCCTCCCCTTCTCTACCACATCTTGCTCGTCCACGGCATCCACTTCCTTCTCCGAACACAGCAGAACCCAGGTT
GGGTTCAACCAAGGGAAGGAGCCAAGAGCCTCAAAGGACCAGGTGCTTTCAGAACCTGAGACCAAGACCATGGG
AAAGGTTTCTCGATTGAGAATACGCAGAACACCAGCCCGTCTCAGCTAAACCTTACACCAATGGGACTGCCTCG
ACCAATCAGGTTGAACAAGAAGGAGTTGAGCTTGGAAGAAATTTACACCAACAAGAATTACCAATCACCCACAAC
CAGGAGGACCTTTGAGACCATCTTTGAGGAACCCCGGGAGCGCAATGGGACTCTGATTTTACCAGCTCAAGGAA
GCTCCGGCGGGCTGTGGAATTTGCGGACAGCAGCCTTCCTCGATCACGAAGACCGTCCCGTGGGGTCCGGGCTGC
AGGGGGCAGGACTGTTTCTCCCAATGTGGCCCCCAGCCCTGATGTGGGCCCCCTGCTCCAGCAGCGGCTGGAGGA
GCTAGATGCCTTGCTCCTGGAGGAAGAAACAGTAGATCGGGAGCAGCCCCACTGGACCTAGGTGCCCCATCTGTT
GGTCATCCATCCTGAAGGGACAGGAAACCTCCCAGGCAGTTATTTTTTTTTTCTCTATATTTCTAGTAAAGTTTT
CGATATGTTTCTGAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4459

MDLPGDSSPPGQPRLCRQPLTRALWGARSPKRPRLQLPGAPSPLEKASRRVLAVVLEDVMAVHMVPVVP SKQTSI
PQHHSYHQDPVHRQPPASPPRQAGWSSQARPPDPLCLCREPLSRIHRTSSTLRRRSRTTPGPEEGPSQKVDRAPQ
PTLVVMLEDIASPRPPAEGFIDETPNFIIPAQRAEPMRIVRQPTPPPGDLEPPFQPSALPADPLESPPTAPDPAL
ELPSTPPPSSLLRPLSPWGLAPLFRSVRSKLESFADIFLTPNKTPQPPPPSPPMKLELKIAISEAEQSGAAEGT
ASVSPRPPIRQWRTQDHNTPALLPKPSLGRSYSCPDLGPPGPGTCTWPPAPPQPSRPRPRRHTVGGGEMARAPP
PRPCLRKEVFPLGGVGASPSLTTSSTASTSFSEPAEPRLGSTKGKEPRASKDQVLSEPETKTMGKVSFRIR
TPARPQLNLTPMGLPRPIRLNKKEFSLEEIYTNKNYQSPTTRRTFETIFEPRERNGLIFTSSRKLRAVEFRD
SSLPRSRPSRGVRAAGGRTVPPNVAPSPDVGPLLQQRLEELDALLLEEETVDREQPHWT

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FIGURE 4460A

GCTAGGCTGACCCTCCTGCAGGTGACGGAAGTACCGCCTCCTCCCGTTTGACGCCCCCTCAGGGGACCCTGCATCG
CTCCAGCCGCCCGCGGCCATGTCTGGGCCAGGCAACAAACGCGCCGCCGGCGACGGGGGCTCAGGGCCCCCGGAAA
AGAAGCTGAGTCGTGAGGAGAAGACCACCACGACTCTTATCGAGCCCATTCTGTCTTGAGGCATCTCTTCCACGG
AGGAGATGGACCTGAAGGTACTACAGTTCAAGAACAAGAACTGGCAGAGCGGCTGGAACAACGGCAGGCTTGTG
AAGATGAACTCCGAGAACGAATTGAGAAGTTGGAGAAGCGGCAGGCCACAGATGATGCCACACTCCTCATCGTCA
ATCGCTACTGGGCCCAGCTGGATGAACTGTGGAAGCCCTTCTCCGATGCCATGAGAGCCAGGGGGAGCTGTCTT
CAGCGCCTGAGGCACCTGGGACCCAGGAGGGGCCAACATGTGATGGGACTCCTCTCCAGAGCCGGGGACATCAG
AGCTGAGAGACCCCTTGCTGATGCAGCTGCGGCCCCCTCTCAGTGAGCCGGCCTTGGCTTTTGTGGTGGCACTGG
GTGCCAGCAGCAGTGAGGAGGTGGAGCTGGAGCTGCAAGGCCGAATGGAGTTCTCCAAGGCAGCTGTGTCTCGTG
TGGTAGAGGCCCTCAGACCGCTACAGCGCCGGGTGGAGGAACTCTGTGAGCGAGTGACAGCCGAGGGGACAGTG
AGCCCCCTCAGTGAGGCGGCTCAGGCACACACCCGAGAGCTGGGCGGTGAGAACC GGCGACTGCAGGACTTGGCCA
CTCAGCTGCAGGAGAAAACACCACCGCATCTCATTGGAGTACTCCGAGCTCCAGGATAAAGTGACATCGGCAGAGA
CCAAGGTGTGAGATGGAGACAACAGTGGAGGACTTGCACTGGGACATCGAGAAGCTGCGGAAGCGAGAGCAAA
AGCTCAATAAGCACCTGGCAGAGGCCTTAGAGCAGCTTAACTCTGGCTACTATGTATCTGGGAGCTCCTCAGGCT
TCCAGGGGGGCCAGATCACACTCAGCATGCAGAAAGTTTGAGATGCTGAATGCAGAGTTAGAGGAAAACCAGGAAC
TGGCCAACAGCCGTATGGCAGAGCTGGAGAACTGCAGGCCGAACCTCAGGGGGCTGTGCGGACCAATGAGCGCC
TCAAGGTGGCCCTGCGGAGCCTTCTGAGGAGGTAGTGCGGGGAGACGGGGGAGTACCGCATGTCTGCAGGCCAAT
TCTCACTGCTCTACAAACGAGTCTCTGCAAGTGAAGACCCAGCTAGACGAGGCTCGGGGCTGTCTGCTGGCCACAA
AGAACTCCACCTGCGACACATCGAGCACATGGAGACGACGAGCTGGGGCTGCAGAAGAAGCTACGCACAGAGG
TCATTACAGCTGGAGGACACGCTGGCCCAGGTACGCAAGGAGTATGAGATGCTGCGCATCGAGTTTGAGCAGAATC
TGGCGGCCAACGAGCAGGCGGGGCCCATCAACCGTGAGATGCGCCACCTGATTAGTAGTCTTCAAACACCAACC
ACCAGCTAAAAGGGGACGCCCAGCGATACAAGCGGAAGCTTCGAGAAGTACAAGCTGAGATTGGGCAAGCTCCGGG
CCCAGGCCAGTGCTCTGCCCCACTCCACCCCCAACCTGGGCCACCCAGAGGATTCTGGCGTCAGTGCCCCAGCCC
CAGGGAAAGAGGAGGGTGGGCCAGGCCCTGTCTAGTACCCCCGACAACAGAAAGGAGATGGCTCCAGTGCTGGCA
CCACCACTACTACCACTTCAGTGAAGAAGGAGGAGCTGGTCCCCTCTGAAGAGGACTTCAGGGGTATAACCCCTG
GGGCCCAGGGCCCTTCTCCCGGGGCCGAGAACCTGAGGCCAGGCCCAAGCGGGAGCTTCAGGAACGGGAAGGTC
CCAGCCTAGGACCTCCACCTGTAGCCTCCGCTCTCTCAAGGGCTGATCGGGAGAAGGCCAAGGTGGAAGAAACCA
AGCGGAAGGAATCAGAACTCCTCAAGGGTCTCCGAGCAGAGCTCAAGAAGGCCCAGGAGAGCCAGAAGGAGATGA
AACTGCTGCTGGATATGTACAAGTCAGCGCCCAAGGAGCAGCGGGATAAGGTGCAGCTCATGGCAGCGGAACGCA
AGGCTAAGGCCGAGGTTGATGAGCTGCGGAGCCGCATCCGGGAATTGGAGGAGAGGGATCGAAGGGAGAGCAAGA
AGATCGCGGATGAGGATGCCCTGCGGCGCATTTCGGCAGGCAGAGGAGCAGATAGAACACCTGCAGCGCAAGCTGG
GTGCCACCAAGCAGGAGGAGGAGGCTCTGCTCTCAGAGATGGATGTGACAGGTGAGGCTTTTGAGGACATGCAGG
AACAGAACGGGCGGCTGCTACAGCAGTTGCGGGAAAAGGATGATGCCAACTTTAAGCTAATGTGAGAGCGGATCA
AGGCCAACAGATTACAAAGCTGCTGCGGGAGGAGAAGGATGAGTTGGGCGAGCAGGTCCTTGGCCTCAAGTCCC
AGGTGGATGCCAGCTGCTGACTGTGCAGAAGCTAGAGGAGAAGGAGCGAGCCTTGCAGGGCAGCCTCGGGGGTG
TGGAGAAGGAGCTGACGCTGCGCAGCCAAGCCCTGGAGCTCAACAAGCGGAAGGCTGTAGAAGCCGCCAGCTGG
CCGAGGACCTGAAGGTGCAGCTGGAGCACGTGCAGACTCGGCTGCGGGAGATCCAGCCCTGCCTGGCAGAGAGCC
GGGCTGCTCGTGAGAAAGAGAGCTTCAACCTCAAGAGGGCTCAGGAGGACATCTCACGGCTGCGGCGCAAGCTGG
AAAAGCAGAGGAAGGTGGAGGTCTACGCAGATGCCGACGAAATCCTCCAGGAGGAGATCAAGGAGTACAAGGCGC
GGTTGACCTGCCCCCTGCTGTAAACACCCGCAAGAAGGATGCAGTCTTACCAAGTGCTTCCACGTTTTCTGCTTCG
AGTGCGTGCGGGGCCGCTATGAGGCCGCCAGAGGAAGTGCCCCAAGTGCAACGCGGCCCTTGGTGCCCCAGACT
TCCATCGTATCTACATCAGCTGAACCTGAACTCAGGGGACTCTGGAACACCATGGACCCTGGGGGCTGTGCCCC
CATCTCCTCCCCACCCAGGTCTAGTGGCCCCACCCTCCATTCCGGACCCCATGGGCCAGCCCCCTGCCATCTA
GTTGGTTTGGGGACCCTGGTGCATGCTAGTGGGCATGGGATCAGCCAAGCTTCGTTCCATCTTTTCTAAAGGTC
AGAGCTGCAGCCTAGGGGGCACTGCCCTACAGAAAAGGTCTGCCTGAGAGGCCTGAGGAGCCCAGAGCACTTGAC
TGAGCTTCCCGGAACTGGCCCTAACCTGTCTGTCTCCGTGGATGCATCTAACCTTAAGGAAAATTCCCCAGGC
TGTGATCTACCCTAGAGAAGGCTCGCTCCCTGCCTACTGGCTCACAAATGAGGACCAGTGAGCCATGTCTTGT
CCTTGTGTTGAGACTGGGCTGCAGGCCCCAGGAAGACTTTCCTTACCCACCATCCCCCTAACCTCGGCAGGGCTT

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FIGURE 4460B

CTGTCCTGTGGAGTTCCCTGGACACCTTGGTCTGGCTCTTGTGCCAAGGGCTGAAGGAGGTACCCTCTTGGCAGA
TGGGGGCATCACTTGCTTCCTTTGGGAAGCTCTAAGGTTGCTGCAGTCACCTTCCTCATCTTGCAGGTGCTGAAC
CAACATCATCAGTTTCTATTCTAATCAGGCCCCCTTCCCAATCTCCATTTCTCTGCCAAGCCCCATTTACCCCCACC
TCATGCATCCCAAGGCTCTACTGGGTCCCTGGACCTAACCCCTGCTTTCATCCTGGTGGCCTTAACCTACAGTGGAG
GTGGAACCTTCCCAGGAGGGGAAGGGACAGACCAGCCCCAGCCGCTGGGCCAACTTCCAATCATTCCAGCTAGAAG
AGCTTCCCCCTGACACCCTGTGACTGAGCCTGTGTCTGTCTGCCTGCCCAGCCATGCTCCATCGGCTGTGAGGG
CAGTGCCCGGAGAGGCCAGAGGGTTGGAGCTGCAGGGACCCGTTTGGACCCACAGCCTCTGTTCTAGAGATGCTT
GTATAGGCTGTTAATTGTGATGAATAAACGTTCAACCCTCGGCCTGCAGCCAGAGTAGCCAGGCCGCGCACCCC

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FIGURE 4461

CATGGGGTCCTGTCCCAGCAATTCTGTGGAGCTCATCAACAAGTGCAATTCAATGCAGTCCGAATACCGGGAGAAG
AACGTGGAGCGGATTTCGGAGGCAGCTGAAGATCACCAATGCTGGGATGGTGTCTGATGAGGAGTTGGAGCAGATG
CTGGACAGTGGGCAAAGCGAGGTGTTTGTGTCCAATATCCTGAAGGACACGCAGGTGACTCGACAGGCCTTAAAT
GAGATCTCGGCCCCGGCACAGTGAGATCCAGCAGCTTGAACGCAGTATTCTGTGAGCTGCACGACATATTCACTTTT
CTGGCTACCGAAGTGGAGATGCAGGGGGAGATGATCAATCGGATTGAGAAGAACATCCTGAGCTCAGCGGACTAC
GTGGAACGTGGGCAGGAGCACGTCAAGACGGCCCTGGAGAACCAGAAGAAGGCGAGGAAGAAGAAAGTCTTGATT
GCCATCTGTGTGTCCATCACCGTCGTCCTCCTAGCAGTCATCATTGGCGTCACAGTGGTTGGATAATGTCGCACA
TTGTTGGCACTAGGAGCACCAGGAACCCAGGGCCTGGCCTTCTCTCCCAGCAGCCTGGGGGGCAGGGCAGAGCCT
CCAGTCGGACCCCTTCCTCACACTGGCCCTATGCAGAAGGGCAGACAGTTCTTCTGGGGTTGGCAGCTGCTCAT
TCATGATGGCCTCCTCCTTCAGGCCTCAATGCCTGGGGGAGGCCTGCACTGTCCTGATTGGCCGGGACACACGGT
TTTGTAATAAATTAATAAATAAATAAAGAGCATAGAAA

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FIGURE 4462

GGTTTTCTCCGCGGGCGCCTCGGGCGGAACCTGGAGATAATGGGCAGCACCTGGGGGAGCCCTGGCTGGGTGCGG
CTCGCTCTTTGCCCTGACGGGCTTAGTGCTCTCGCTCTACGCGCTGCACGTGAAGGCGGCGCGCCCGGGACCGG
GATTACCGCGCGCTCTGCGACGTGGGCACCGCCATCAGCTGTTGCGCGCTCTTCTCCTCCAGGTGGGGCAGGGGT
TTCGGGCTGGTGGAGCATGTGCTGGGACAGGACAGCATCCTCAATCAATCCAACAGCATATTCGGTTGCATCTTC
TACACACTACAGCTATTGTTAGGTTGCCTGCGGACACGCTGGGCCTCTGTCTGATGCTGCTGAGCTCCCTGGTG
TCTCTCGCTGGTTCTGICTACCTGGCCTGGATCCTGTTCTTCGTGCTCTATGATTTCTGCATTGTTTGTATCACC
ACCTATGCTATCAACGTGAGCCTGATGTGGCTCAGTTTCCGGAAGGTCCAAGAACCCAGGGCAAGGCTAAGAGG
CACTGAGCCCTCAACCCAAGCCAGGCTGACCTCATCTGCTTTGCTTTGGCATGTGAGCCTTGCCCTAAGGGGGCAT
ATCTGGGTCCCTAGAAGGCCCTAGATGTGGGGCTTCTAGATTACCCCTCCTCCTGCCATACCCGCACATGACAA
TGGACCAAATGTGCCACACGCTCGCTCTTTTTTACACCCAGTGCCTCTGACTCTGTCCCCATGGGCTGGTCTCCA
AAGCTCTTTCCATTGCCCAGGGAGGGAAGGTTCTGAGCAATAAAGTTTCTTAGATCAATC

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FIGURE 4463

GGGCGCAGGCGGCTGGGCGCCTGGCGAGTGGACTGTTTCGAGCCCTTCCGCTGGGACCCGGGCCCCTGGCTCCGGCC
CCGCGATGGGAGCTGCTCTCCGCGGGCTGAGCCTGTCAGCATCCTCGACGCACCCTGGTCCCTGAAGTCGGAGAA
GAGCCCCACCCACCCACACCCCTTGCCCCATTTTGGGTTCGCTGGGTCTCAGTCCTAGCGGATCCTCAGTCC
TAGCGGCCACCGGGTCTGAAAGGAGCAAGACGATGATCCTGGCGTTCGGTGTGAGGAGCGGTCCCGGGGGCGGGC
TTCCGCTCCGGCCCCCTCCTGGGACCCGCACTCGCGCTCCGGGCCCGCTCGACGTGGGCCACCGACACACACCAG
TGGAGATGGCTCGGGAGCGCTCCAAGACCGTCACCTCCTTTTACAACCAGTCGGCCATCGACGCGGCAGCGGAGA
AGCCCTCAGTCCGCTAACGCCACCATGATGCTCTACGCTGGCCGCTCTCAGGACGGCAGCCACCTTCTGAAAA
GTGCTCGGTACCTGCAGCAAGAACTTCCAGTGAGGATTGCTCACCGCATCAAGGGCTTCCGCTGCCTTCCTTTCA
TCATTGGCTGCAACCCACCATACTGCACGTGCATGAGCTATATATCCGTGCCTTCCAGAAGCTGACAGACTTCC
CTCCGATCAAGGACCAGGCGGACGAGGCCAGTACTGCCAGCTGGTTCGACAGCTGCTGGATGACCACAAGGATG
TGGTGACCCCTCTTGGCAGAGGGCCTACGTGAGAGCCGGAAGCACATAGAGGATGAAAAGCTCGTCCGCTACTTCT
TGGACAAGACGCTGACTTCGAGGCTTGAATCCGCATGTTGGCCACGCATCACCTGGCGCTGCATGAGGACAAGC
CTGACTTTGTGCGCATCATCTGTACTCGTCTCTCACCAAAGAAGATTATTGAGAAGTGGGTGGACTTTGCCAGAC
GCCTGTGTGAGCACAAAGTATGGCAATGCGCCCCGTGTCCGCATCAATGGCCATGTGGCTGCCCGGTTCCCTTCA
TCCCTATGCCACTGGACTACATCCTGCCGGAGCTGCTCAAGAATGCCATGAGAGCCACAATGGAGAGTCACCTAG
ACACTCCCTACAATGTCCCAGATGTGGTCATCACCATCGCCAACAATGATGTCGATCTGATCATCAGGATCTCAG
ACCGTGGTGGAGGAATCGCTCACAAAGATCTGGACCGGGTCATGGACTACCACTTCACTACTGCTGAGGCCAGCA
CACAGGACCCCGGATCAGCCCCCTCTTTGGCCATCTGGACATGCATAGTGGCGCCAGTCAGGACCCATGCACG
GCTTTGGCTTCGGTTGCCACGTACGGGCCTACGCGGAGTACCTCGGTGGTCTCTGCAGCTGCAGTCCCTGC
AGGGCATTGGCACGGACGTCTACCTGCGGCTCCGCCACATCGATGGCCGGGAGGAAAGCTTCCGGATCTGACCCC
ACAGCCTTTGGCCTGCTCACCCGACCAGCCTGGGCCGATTCCTTGCAGGACCTCCCGGGTCAGGCAGGGCGGCC
CCCTGCTCCACACACTGCTGCATCTTGGGTCTCAGGGACCCAGACAGATGGACTTACATGGAGCTGGGCACTGCC
CTGCCTCAACAGGGTCCATTGCCTCCTCGCCTCCAGAACTTGGAGCAGGGAAGTGGGCACCCTGAGGCCTCCAGC
ACCACTTCCGTCATTCTCGTTCCTGGGGAACCCCACTCTGACCTGTTATTAAAGTTCACATTTGAATGCCCTC
TCGGGCCCCGTGTGTGGGAGGGCAGGTG

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FIGURE 4464

MILASVLRSGPGGGLPLRPLLGPALALRARSTSATDTHHVEMARERSKTVTSFYNSAIDAAAEEKPSVRLTPTMM
LYAGRSQDGSHLLKSARYLQQELPVRIAHRIKGFRCCLPFIIGCNPTILHVHELYIRAFQKLTDFPPIKDQADEAQ
YCQLVRQLLDDHKDVVTLAEGLRERKHIEDEKLVRYFLDKTLTSRLGIRMLATHHLALHEDKPDFVGIICTRL
SPKKIIEKWVDFARRLCEHKYGNAPRVRINGHVAARFPFIPMPLDYILPELLKNAMRATMESHLDTPYNVPDVVI
TIANNDVDLIIRISDRGGGIAHKDLDRVMDYHFTTAEASTQDPRISPLFGHLDMHSGAQSGPMHGFGLPTSRA
YAEYLGGSLQLQSLQGIGTDVYLRLRHIDGREESFRI

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FIGURE 4465

ATGCTCAGTCCTCCAGGCGTCGGTGCTCAGCGGTGTTGGAACCTTCGTTGCTTGCTTGCCGTGTGCGCGCGTGCGCG
GACATGGCCTCAAACGATTATACCCAAACAAGCAACCCAAAGCTATGGGGCCTACCCACCCAGCCCCGGGCAGGGC
TATTTCCAGCAGAGCAGTCAGCCCTACGGACAGCAGAGTTACAGTGTTATAGCCAGTCCACGGACACTTCAGGC
TATGGCCAGAGCAGCTATTCTTCTTATGGCCAGAGCCAGAACACAGGCTATGGAACTCAGTCAACTCCCCAGGGA
TATGGCTCGACTGGCGGGCTATGGCAGTAGCCAGAGCTCCCAATCGTCTTACGGGCAGCAGTCTCTACCCCTGGC
TATGGCCAGCAGCCAGCTCCCAGCAGCACCTCGGGAAGTTACGGTAGCAGTTCTCAGAGCAGCAGCTATGGGCAG
CCCCAGAGTGGGAGCTACAGCCAGCAGCCTAGCTATGGTGGACAGCAGCAAAGCTATGGACAGCAGCAAAGCTAT
AATCCCCCTCAGGGCTATGGACAGCAGAACCAGTACAACAGCAGCAGTGGTGGTGGAGGTGGAGGTGGAGGTGGA
GGTAACTATGGCCAAGATCAATCCTCCATGAGTAGTGGTGGTGGCAGTGGTGGCGGTTATGGCAATCAAGACCAG
AGTGGTGGAGGTGGCAGCGGTGGCTATGGACAGCAGGACCGTGGAGGCCGCGGCAGGGGTGGCAGTGGTGGCGGC
GGCGGCGGCGGCGGTGGTGGTTACAACCGCAGCAGTGGTGGCTATGAACCCAGAGGTCTGTGAGGTGGCCGTGGA
GGCAGAGGTGGCATGGGCGGAAGTGACCGTGGTGGCTTCAATAAATTTGGTGGCCCTCGGGACCAAGGATCACGT
CATGACTCCGAACAGGATAATTAGACAACAACACCATCTTTGTGCAAGGCCTGGGTGAGAATGTTACAATTGAG
TCTGTGGCTGATTACTTCAAGCAGATTGGTATTATTAAGACAAACAAGAAAACGGGACAGCCCATGATTAAATTG
TACACAGACAGGGAACTGGCAAGCTGAAGGGAGAGGCAACGGTCTCTTTTGATGACCCACCTTCAGCTAAAGCA
GCTATTGACTGGTTTGATGGTAAAGAATTCTCCGGAATCCTATCAAGGTCTCATTGTACTCGCCGGGCAGAC
TTTAATCGGGGTGGTGGCAATGGTCGTGGAGGCCGAGGGCAGGAGGACCCATGGGCCGTGGAGGCTATGGAGGT
GGTGGCAGTGGTGGTGGTGGCCGAGGAGGATTTCCAGTGGAGGTGGTGGCGGTGGAGGACAGCAGCGAGCTGGT
GACTGGAAGTGTCTTAATCCCACCTGTGAGAATATGAACCTCTCTTGGAGGAATGAATGCAACCAGTGTAAAGCC
CCTAAACCAGATGGCCCAGGAGGGGGACCAGGTGGCTCTCACATGGGGGGTAACTACGGGGGATGATCGTCGTGGT
GGCAGAGGAGGCTATGATCGAGGCGGCTACCGGGGGCCGCGGGGACCGTGGAGGCTTCCGAGGGGGCCGGGGT
GGTGGGGACAGAGGTGGCTTTGGCCCTGGCAAGATGGATTCCAGGGGTGAGCACAGACAGGATCGCAGGGAGAGG
CCGTATTAATTAGCTGGCTCCCCAGGTTCTGGAACAGCTTTTTGTCTGTACCCAGTGTACCCTCGTTATTTT
GTAACCTTCCAATTCCTGATCACCAAGGGTTTTTTTTGTGTCGGACTATGTAATTGTAACCTATACCTCTGGTTC
CCATTAAAAGTGACCATTTTAGTT

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FIGURE 4466

MASNDYTQQATQSYGAYPTQPGQGYSSQSSQPYGQQSYSGYSQSTDTSGYGQSSYSSYGQSQNTGYGTQSTPQGY
GSTGGYGSSQSSQSSYGQQSSYPGYGQQPAPSSSTSGSYGSSSQSSSYGQPQSGSYSQQPSYGGQQQSYGQQQSYN
PPQGYGQQNQYNSSSGGGGGGGGGNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQDRGGRGRGGSGGGG
GGGGGGYNRSSGGYEPRGRGGGRGGRMGGSDRGGFNKFGGPRDQGSRDSEQDNSDNNTIFVQGLGENVTIES
VADYFKQIGIIKTNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAIDWFDGKEFSGNPIKVSFATRRADF
NRGGNGRGGGRGGPMGRGGYGGGSGGGGRGGFSGGGGGGGQQRAGDWKCPNPTCENMNF SWRNECNQCKAP
KPDGPGGGPGGSHMGGNYGDDRRGGRGYDRGGYRGRGGDRGGFRGGRGGGDRGGFGPGKMDSRGEHRQDRRERP
Y

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FIGURE 4467

ATGCCAAGGTCAGGGGGCTCCCAAAGAGCGCCCTGCGGAGCCTCTCACCCCTCCCCATCCTATGGCCACCAGCCA
CAGACAGGGTCTGGGGAGTCTTCAGGAGCCTCGGGGGACAAGGACCACCTGTACAGCACGGTATGCAAGCCTCGG
TCCCCAAAGCCTGCAGCCCCGGCGGGCCCTCCATTCTCCTCTTCCAGCGGTGTCTTGGGTACCGGGCTCTGTGAG
CTAGATCGGTTGCTTCAGGAACCTAATGCCACTCAGTTCAACATCACAGATGAAATCATGTCTCAGTTCCCATCT
AGCAAGGTGGCTTCAGGAGAGCAGAAGGAGGACCAGTCTGAAGATAAGAAAAGACCCAGCCTCCCTTCCAGCCCG
TCTCCTGGCCTCCCAAAGGCTTCTGCCACCTCAGCCACTCTGGAGCTGGATAGACTGATGGCCTCACTCTCTGAC
TTCCGCGTTCAAACCATCTTCCAGCCTCTGGGCCAACTCAGCCACCGGTGGTGAGCTCCACAAATGAGGGCTCC
CCATCCCCACCAGAGCCGACTGGCAAGGGCAGCCTAGACACCATGCTGGGGCTGCTGCAGTCCGACCTCAGCCGC
CGGGGTGTTCACCCAGGCCAAAGGCCTCTGTGGCTCCTGCAATAAACCTATTGCTGGGCAAGTGGTGACGGCT
CTGGGCCGCGCCTGGCACCCCGAGCACTTCGTTTGGCGAGGCTGTTCCACCGCCCTGGGAGGCAGCAGTTCTTC
GAGAAGGATGGAGCCCCCTTCTGCCCCGAGTGCTACTTTGAGCGCTTCTCGCCAAGATGTGGCTTCTGCAACCAG
CCATCCGACACAAGATGGTGACCGCCTTGGGCACTCACTGGCACCCAGAGCATTCTGCTGCGTCAGTTGCGGG
GAGCCCTTCGGAGATGAGGGTTTCCACGAGCGCGAGGGCCGCCCTACTGCCGCCGGGACTTCCTGCAGCTGTTC
GCCCCGCGCTGCCAGGGCTGCCAGGGCCCCATCCTGGATAACTACATCTCGGCGCTCAGCGCGCTCTGGCACCCG
GACTGTTTCGTCTGCAGGGAATGCTTCGCGCCCTTCTCGGGAGGCAGCTTTTTCGAGCACGAGGGCCGCCCGTTG
TGCGAGAACCACTTCCACGCACGACGCGGCTCGCTGTGCGCCACGTGTGGCCTCCCTGTGACCGGCCGCTGCGTG
TCGGCCCTGGGTGCGCGCTTCCACCCGGACCACTTCACATGCACCTTCTGCCTGCGCCCGCTCACCAAGGGGTCC
TTCCAGGAGCGCGCCGGCAAGCCCTACTGCCAGCCCTGCTTCCTGAAGCTCTTCGGCTGA

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FIGURE 4468

CAAAAGCTCGGCATCGCTGACGACGCGGGTTTGGAGACCCCGCTGTGTTCCGAGCAGTTTCGGCTCCGGGGAGGCA
CGGGGCTGCCGCGCCGCCGCGGACGGGAGCCTGCAGTGGGAGGTTCGGGGGCTGGCGCTGGTGGGGGCTCTCCAGG
GCCTTCACGGTCAAACCTGAAGGACGAGATGCGGGCGAAGTGGGGGCTTCGGGGCCCCCTACCGCCCCCTCTCC
GGGCTCCAGGCCGTGTTCTGCCTCAGGGCTTCCTTGATAGCGTCAGCCCCGACTACTTGCCCTACCAGCTGTGG
GATTCCGTGCAGGCGTTTGCTTCCAGCCTCTCCGGCTCCCTAGCCACCCAGGCAGTCTTGCTGGGCATAGGGGTG
GGGAACGCAAAAGCCACTGTTTTCAGCTGCCACGGCCACCTGGCTCGTGAAAGATTCAACTGGCATGCTGGGCCGC
ATCGTCTTTGCCTGGTGGAAAGGGAGCAAACCTGGACTGCAATGCCAAGCAGTGGAGGCTTTTTGCGGACATCCTC
AATGACGTAGCCATGTTCTTGAGATTATGGCTCCTGTATACCCAATCTGTTTACCATGACCGTCTCCACCAGC
AACCTAGCCAAGTGCATCGTGAGTGTGCTGGTGGGGCCACTCGGGCTGCCCTGACCGTGCACCAGGCTCGGAGG
AACAACATGGCTGACGTGTGAGCCAAAGGACAGCAGCCAGGAGACGCTGGTGAACCTGGCGGGGCTCTTGGTCAGC
CTCCTGATGCTCCCTCTGGTGTGAGTTGCCCTGGCTTCAGCCTGGATGTTCTTCTTCTCACTGCCCTCCAC
ATCTACGCCAACTACCGCGCGGTCCGAGCCCTGGTCATGGAGACCTTGAACGAAGGCCGGCTCCGGCTGGTCTCTG
AAGCACTACCTTCAGAGGGGAGAGGTACTCGACCCAATGCAGCCAATCGCATGGAGCCGCTGTGGACAGGTTTC
TGGCCAGCTCCGTCTCTATCCCTGGGGGTCCTTACACCGCTTGGTCTCCAGTGTCTTTGAGCTGCAGCAGCTG
GTTGAGGGGCACCAAGAATCCTACCTCCTCTGCTGGGACCAGTCACAAAACCAGGTACAGGTAGTTCTGAACAG
AAGGCAGGGCCCCAAGACCATCCTAAGGGCCGCCACACATGGGCTGATGCTTGGGGCCCTGCAGGGAGATGGACCC
CTTCCAGCAGAGCTGGAGGAGCTGAGGAACCGGGTGGGGCAGGTCCCTAAGAAAGAGAGCTGGGTCTCGTCAAG
GAGACACACGAAGTGTGGACATGCTGTTCCAAAGTTCTTGAAAGGACTGCAGGATGCCGGCTGGAAGACCGAG
AAGCACCAGCTAGAGGTGGGTGAGTGGAGGGCCACATGGCTTCTGTCTCCCGAAAAGAAGGTCTTGTGAGCAGCC
CAGACGGAGGCCCAAGCCCAGGGCAGGAACCTGGAGCAAGGACACTTTGGCCACAGCAGGACAGGGGAAAGGCAG
CTTTATTTTTTCTTAGGGCAACTGCAGCGGTGGGCCAGGCCCTCATGGGAAGTGACTGCCAATCAGATGCAGTG
GGCCCCAGGCAGAGGAAGGCCGGGAGAAGGGGAGCCAGGACCTTCTACCCCCACTGCCCTTCCCCTTTTCTGGG
GAGCACCGCAGGCTCCTCACCCCCACTTCTGTGAGGCTGTGGCTTATGGTGTCCAACGCAGTTGGTCTTAGGCA
TAGAAGCCCCAGAGGAACACGGCCACTGCCATCATGAGCAGGGCATTGAGGTTGACCACACGGGCCAGCTCGGG
TCCTCGCTGATGTCTCCAGCCGCTGGCTGCTGCCGCTGCCTCCTCCTGGGTAAGGGGCGGAGGACTGCCACC
CCACCTCTGCTCATTCCACAAAACCAGAGCAGGCACCTGGCGGAAGAGGCTTGGTGCCGGGGCCTGGGGCTCTGAG
GGAAATTGAGGCCCTGCAGTTAGTTTTCGGGAACCTCAGCTCCTCCAGCCCCACCTCCCAGCATGGTGCCCTACCA
TTCATCTCCATGGCACTCTCTGGGCACCCATTCTGTACAGGGAGTGAGGAGCCTTGCTGCTCATCAGCATCCAGG
TCCTCCCGTTCTCTCTTGCTATGCCGAGACTGAAGACCAGGCGGTGGAGCTGGGGAGGGTGGGAGCACGAACGA
GGTGGGAGTTCTGTCCCCCATGCCTGGCCCTAAAGTCTCTTGACACCAGCTCGTCACTGCCTGCCCTACCCAC
CTCTGTCCAGTCTACACACCCAGCCAGGCTTAACCTAIGCCAACTCCACCCCTACATGGCTGCCCTGTGCCCTCG
GGATAAACCCCAAGCCCCTGAGCTTGTGTTTAAAGCCGTTGGCCTTGCTCCCCCAGCTTTGTCAGCTCAGGTCTG
TCTACACCCAGATGGTAGCGCTTGTGACACTGGCCTGGCAGTCTGCTCACAGTGTCTGTGCTGTGTGCTCCC
ACCCTTTCTCTCTGCTGCTGCAGAAACCCGGCCATCCTTCCACACCCAGATCTTGTGCTGTCTCACCCACC
CTGCCACCATCAGCCCTGCCTGGAGCCACCTGCCCTTTGGCAACAAAACCAACCTTTTGTGGGCGTTCAAGAT
GGTATTGTGCCACCAAGTCAGATCCTGTGTTTGTAGTCCCAAGGCCATGCCAAGGATTGGCTTTGGGAGGCTTT
AATCACCAACCCATCAACATCAAGCCTCCCCCAGGCCGGTTCAAATAAATGTATTTAAAT

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FIGURE 4469

MADDAGLETPLCSEQFGSGEARGCRAAADGSLQWEVGGWRWWGLSRAFTVKPEGRDAGEVGASGAPSPPLSGLQA
VFLPQGFPDSVSPDYLPYQLWDSVQAFASSLSGSLATQAVLLGIGVGNAKATVSAATATWLVKDSTGMLGRIVFA
WWKGSKLCNAKQWRLFADILNDVAMFLEIMAPVYPICFTMTVSTSNLAKCIVSVAGGATRAALTVHQARRNNMA
DVSARDSSQETLVNLAGLLVSLLMLPLVSGCPGFSLGCEFFLTALHIYANYRAVRALVMETLNEGRRLRLVLKHYL
QRGEVLDPTAANRMEPLWTGFWPAPSLSLGVPLHRLVSSVFELQQLVEGHQESYLLCWDQSQNVQVVLNQKAGP
KTI LRAATHGLMLGALQGDGPLPAELEELRNVRAGPKKESWVVVKETHEVLDMLFPKFLKGLQDAGWKTEKHQL
EVGEWRATWLLSPEKKVL

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FIGURE 4470

GCTTCCCTGCTTGATCTGTGTACCTGCTCTTTCTCCTTCATTCCGCAGCCTCCTTTGCCCTGTGACCTGCAGGT
ACTGGACGGTCCCTAGAGAGGATACCGGGACGCTCCTGAAGCCGCGAGATGATTTCAAGCAGATGCAGCCTGACC
ATTAGGGCCAAGGCCAAATTGCAAAAAAAAAAAGAAGTTTGCTTTATTCTACTCCATCCACATCTAAACTTTGG
AGGTCAAGGCTGTGGACAGATCAGAAGACATAGTTCCCTCCTTCTGGGGCTCCACATCCTTCATTCACTGATCTC
TGGGAAGGAGGATGGGTGGCAGGATGGGTCTTCCATGATACTGAAGGGAGAGCCACATGTTGATGCCCAGGACCA
GCTGCCTCCTTGGTCTGAAAGGCCTGATCGAGGCCAGGATTGGCTATGAGAGCTGGGAAATGGGACCATCTTTGA
AGCCATGGGAGAGGGTGAGAGCCACCATCACTCATGTTCTTGAATGGGAACCTGCCTGGAGACCCCTGAAGAAGAAG
GAGCCTGAAGGAGGAAGGAGGAGGCTGAGCCATCCCGGGAACATGGGCTGGATGAGGCCAAGCCAGGAGACGACA
CCACCAGATAGAAGTCACCATTCAGGATTTGGACTTTTCTGTGGAGATCCTGGCCCCGAGATCGAACCCCTTCTCC
CTGTGGGTGTTCCCGCAGGAGATGGTGCTGGAGATCCACCAGCTGTTTCATGGACCATGAATACCCATGTCACCAC
ATCACTTCTCACTGCACCTGGGTGGCAGCACACTGGACCACGTCTCAGAGCTGCGCAGCATGGCAGGGCTGCAGG
CGGGCTTGCTGCTCCACGTGGTGGAAGAGCCCTGCACAATGCACAAGGCCACGGTGATGAGTGCCACATTTGAG
ACTGCTCAGGAGCCTGGACCCAGCTGATGCAGCTCCTTGTCTTCCCTGAGCGTCTTCACTGACAGTGGCCTGAGA
GACGGCAGGAGCAGAAAGACTTGGAGATGGACCCACCGACTGCACACCACCCAAGTACATCCTGCTAGGGACCC
TGGAACAGCCACTGTGTCCCTTGCAACCCAGAACGGTGACTAAAAGCCCCTGAAAGTGCTCACCGTGAGCGGCT
GGTACCTGTCCCTGGGAAGTGAAGATGCACAGGACCTTGTGTACCTGTTTGTGATCACAGCCGAGGACCAGCG
AGGTAGCATTACCACATCCACACAGGGCTTTTACCATAACCGCCCCAGTACTGGAACGAGGAGCTGCAGATGATG
AGGGACCTACCCAACAAGAACCAACCTGAGCAGCTGCTTCAAGAAAAAGCCATGTTCAAGGTGCCTGAATCCCT
GGTAAGTGAGTGACAGCCTCACAGCCTCAGGCCACCTGGCTCCTGCTGGAAGGTTTTCTTGTGCTCGGGAGAGA
AGTGAGGGAAGCCGGCAGTCCAGCCCTGTCAGGTGCCCTGAAGGCCCGTCAGGTTTGCCCTGCAAGGCCTTCTA
GCATTCTGCTTCTGAGGACCATCCCCACCTTTCTCCGGCCTCTGAGACTTTGAGTCTTGGGAGGAGAAGGC
CCTCCTTGCTATCTGGGCTGAGTGGCCAGGGCCATCCAGCTTCCACCCTCCACTGACTGCCATGGGGCCCTCCC
CTGAGCACATGGTGCCCAACTGTAGCCCTTCTAGGGCAGGGGCTCATGGCAGCACTTGCAGCTTGCTGGCACTT
AAAAGTCATTAGTGCGGTTACTGAGAGAAATGAGGAAAAATAATTGTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4471

MFLNGNCLET LKKKEPEGGRRRLSHPGNMGWMRPSQETTPDRSHHSGFGLFCGDPGPEIEPFS LWVFPQEMVLE
IHQLFMDHEYPCHHITSHCTWVAHWTT SQSCAAWQGCRRACCSTWWKSPAQCTRPTVMSATFETAQEPGPS

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FIGURE 4472

AAGAAGAGGCGAGAAAGACCCCCGACAGACCAAAGCCCGTGTGCCGCTGCATCCTGCATCCAGCACCTACCTCC
CGCCACTGTCGCCACTGCCACC~~ATG~~CCCCAAGAGAAAAGGCTGAAGGGGATGCTAAGGGAGATAAAGCCAAGGTGAA
GGATGAACCACAGAGAAGATCCGCAAGGTTGTCTGCTAAACCTCCTCCTCCAAAGCCAGACAGCCCAAGCCTAGA
AAGGCCCCCTGCAAAGAAGGGAGAGAAGGTACCCAAAGGGAAAAAGGGAAAAGCTGATGCCCAGGAGGAGGGATTG
CCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTGGTATAGAAAAACAAATTTGTTTTATGTCTT
CTTCTCCCTTTCCATCTTTCAGCATAGACTTAACTCCCTTAAGCCCAGACATCTGTTGGGACCTGACCCCT~~TAGTC~~
ATTGGTTACCAGTGTGTGTCAGGCAATCTGGACTTTCCAGTGATGCCACTGAGATGGCACCTGTCAAAGAGTAGTG
GTTCCATTTCTAGATTGTAGATCTTCAGATAAATTCTGCCATTTTCATTTCACTTCCTGAAAGTCAGGGTCCGGCT
TCTAAAAATTTGTTAAACAATATGCTAAATGTGAAATGTCACCCCTCACTCTAAACTTTCCCGTTCAGAGCATC
AGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTTTTGGTAGTCCATTGAAGAAGGGAGTTTGAAAGTT
GTTGTATACTGTTAACGATTATCTGCCCATGTCCTGCCT

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FIGURE 4473

MPKRKAEGDAKGDKAKVKDEPQRRSARLSAKPPPPKPDSPSLERPLQRRRERYPKGKREKIMLRRRDSLTLTHMA
TLAQKPCGIEKQICFYVLFSLSFQHRLNSLKPRHLLGPDP

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FIGURE 4474

CCGCTCTGTCTGCTTCGCCACCTTCTCCCCGAGCACTGCCCGGCCGGCCGCC**ATG**GCTAACGTGGCTGACACGAA
GCTGTACGACATCCTGGGCGTCCCCGCCGGCGCCAGCGAGAACGAGCTGAAGAAGGCATACAGAAAGTTAGCCAA
GGAATATCATCCTGATAAGAATCCAAATGCAGGAGACAAATTTAAAGAAATAAGTTTTGCATATGAAGTACTATC
AAATCCTGAGAAGCGTGAGTTATATGACAGATACGGAGAGCAAGGTCTTCGGGAAGGCAGCGCGGAGGTGGTGG
CATGGATGATATTTTCTCTCACATTTTGGTGGGGGATTGTTCCGGCTTCATGGGCAATCAGAGTAGAAGTCGAAA
TGGCAGAAGAAGAGGAGAGGACATGATGCATCCACTCAAAGTATCTTTAGAAGATCTGTATAATGGCAAGACAAC
CAAAC TACAAC TTAGCAAGAATGTGCTCTGTAGTGCATGCAGTGGCCAAGGCGGAAAGTCTGGAGCTGTCCAAAA
GTGTAGTGTCTGTGCGAGGTCGAGGTGTGCGCATCATGATCAGACAGCTGGCTCCAGGGATGGTACAACAGATGCA
GTCTGTGTGCTCTGATTGTAATGGAGAAGGAGAGGTAATTAATGAAAAAGACCGCTGTAAAAAATGTGAAGGGAA
GAAGGTGATTAAAGAAGTCAAGATTCTTGAAGTCCACGTAGACAAAGGCATGAAACATGGACAGAGAATTACATT
CACTGGGGAAGCAGACCAGGCCCCAGGAGTGGAACCCGGAGACATTGTTCTTTTGCTACAGGAGAAAGAACATGA
GGTATTT CAGAGAGATGGGAATGATTGTCACATGACATATAAAATAGGACTTGTGTAAGCTCTATGTGGATTTCA
GTTACATTTAAGCACCTTGATGGACGTCAGATTGTGGTGAAATACCCCCCTGGCAAAGTAATTGAACCAGGGTG
TGTTCTGTAGTTCGAGGTGAAGGGATGCCGCAGTATCGTAATCCCTTTGAAAAAGGTGATCTTTACATAAAGTT
TGATGTGCAGTTTCTGAAAACAACTGGATCAACCCAGACAAGCTTTCTGAACTAGAAGATCTTCTGCCATCTAG
ACCGGAAGTTCTTAACATAATTGGAGAAACAGAGGAGGTAGAGCTTCAGGAATTTGATAGCACTCGAGGCTCAGG
AGGTGGTCAGAGGCGTGAAGCCTATAATGATAGCTCTGATGAAGAAAGCAGCAGCCATCATGGACCTGGAGTGCA
GTGTGCCCATCAG**TAA**ACTCTGCAAACAAATTGCACAGGTGGATTTTCTTTCCACATTTGCCTGATTTGTTCTCA
GCAATCCAGCTGGAGTGTCTTATCAATCCAGATGAAC TGAGGGACATCTGTTGGTCTATGTATAACTTTTAAAT
TGGTATAGTATCTACAGAGTGTATAATTTAAACTAACCACAAAGCTTTACATCTTCATTTTGACTGTTCCATAGC
AGAATAAAGCACTTGAAAGGAAACAAGACTCCCTTTACACATGGATTATTATAAGTTTCAATCCTGGTATCTGT
GCTTGATTTTTATCAGTTTTGTGTAGATTTTTATGTTTCATATTTAAATTTAAATCCACATTTGTAAAGTTTGT
ACAATTTGTCTGAAGCTTTGTGTTTGGCTGCACCTGCATAAGCTGCTACAAATAGAATAAAGAATTTCATAGCC
TGTAICTATCATTTAGATGCATGGAAAAAATGGGCTTTGCACACAATGGGTTTGGAGCTGACTGGGAACAATGG
AAAAAATTACATTAGCTGTGGTTGTAAAGTTTTTTTGTGTTTTTGGTTTTGTTTTTTTTTTCTTTTTTCTTTTTTT
TTTTTTTACCATCTTGTGAAAGGTTTCTGAAACTCGATAATAAAAAGCGGTTGGTGTAATTT

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FIGURE 4475

MANVADTKLYDILGVPPGASENELKKAYRKLAKKEYHPDKNPNAGDKFKEISFAYEVLNPEKRELYDRYGEQGLR
EGSGGGGGMDDIFSHIFGGGLFGFMGNQSRNRNGRRGEDMMHPLKVSLEDLYNGKTTKLQLSKNVLCSACSGQG
GKSGAVQKCSACRGRGVRIMIRQLAPGMVQQMQSVCSDCNGEGEVINEKDRCKKCEGKKVIKEVKILEVHVDKGM
KHGQRITFTGEADQAPGVEPGDIVLLLQEKHEVEFQRDGNDLHMTYKIGLVEALCGFQFTFKHLDGRQIVVKYPP
GKVIIEPGCVRVVRGEGMPQYRNPFKGDLYIKFDVQFPENNWINPDKLSELEDLLPSRPEVPNIIGETEEVELQE
FDSTRGSGGGQRREAYNDSSDEESSHHGPGVQCAHQ

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FIGURE 4476

GGCACGAGCGCGGCGTTACGGGAATTGTTTCGCTTTAGTGCCGGCGCCATGGGGTCGGAGCTGATCGGGCGCCTA
GCCCCGCGCCTGGGGCTCGCCGAGCCCGACATGCTGAGGAAAGCAGAGGAGTACTTGCGCCTGTCCCGGGTGAAG
TGTGTCGGCCTCTCCGCACGCACACGGAGACCAGCAGTGCAGTCATGTGCCTGGACCTTGACGCTTCCTGGATG
AAGTGCCCCCTGGACAGGGCTTATTTAATTAAACTTTCTGGTTTGAACAAGGAGACATATCAGAGCTGTCTTAAA
TCTTTTGAGTGTTTACTGGGCTGAATTCAAATATTGGAATAAGAGACCTAGCTGTACAGTTTACTGTATAGAA
GCAGTGAACATGGCTTCAAAGATACTAAAAAGCTATGAGTCCAGTCTTCCCCAGACACAGCAAGTGGATCTTGAC
TTATCCAGGCCACTTTTCACTTCTGCTGCACTGCTTTCAGCATGCAAGATTCTAAAGCTGAAAGTGGATAAAAAAC
AAAATGGTAGCCACATCCGGTGTAAGCTATATTTGATCGACTGTGTAAACAAGTAGAGAAGATTGGACAG
CAGGTCGACAGAGAACCTGGAGATGTAGCTACTCCACCACGGAAGAGAAAGAAGATAGTGGTTGAAGCCCCAGCA
AAGGAAATGGAGAAGGTAGAGGAGATGCCACATAAACCACAGAAAGATGAAGATCTGACACAGGATTATGAAGAA
TGGAAAAGAAAAATTTTGGAAAATGCTGCCAGTGCTCAAAGGCTACAGCAGAGTGAATTTCAGCTTCCAACTGG
TATACATTCCAACTGATAGTACATTGCCATCTCCAGGAAGACTTGACGGCTTTGGGATTTTGTTTAACTTTTA
TAATAAGGATCCTAAGACTGTTGCCTTTAAATAGCAAAGCAGCCTACCTGGAGGCTAAGTCTGGGCAGTGGGCTG
GCCCCTGGTGAGCATTAGACCAGCCACAGTGCCTGATTGGTATAGCCTTATGTGCTTTTCTACAAAATGGAAT
TGGAGGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGT
CAGGAGCTCGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAATTAGCCAGGTGTG
ATGGTGATGCCTGTAATCCCAGCTCCTCAGTAGGCTGAGACAGGAGCATCACTTGAACGTGGGAGGCAGAGGT
GCAGTGAGCCGAGATTGCACCACCGCACTCCAGCCTGGGTGACAGAGCGAGACTTATCTCATAAATAAATAGATA
GATACTCCAGCCTGGGTGACAGAGCGAGACTTATAGATAGATAGATAGATAGATGGATAGATAGATAGATAGATA
GATAGATAGATAAACGGAATTGGAGCCATTTTGCTTTAAGTGAATGGCAGTCCCTTGTCTTATTCAGAATATAAA
ATTCAGTCTGAATGGCATCTTACAGATTTTACTTCAATTTTTGTGTACGGTATTTTTTATTTGACTAAATCAATA
TATTGTACAGCCTAAGTTAATAAATGTTATTTATATATGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4477

MGSELIGRLAPRLGLAEPDMLRKAEEYLRLSRVKCVGLSARTTETSSAVMCLDLAASWMKCPLDRAYLIKLSGLN
KETYQSCLKSFECLLGLNSNIGIRDLAVQFSCIEAVNMASKILKSYESSLPQTQQVDLDLSRPLFTSAALLSACK
ILKLKVDKNKMOVATSGVKKAFDRLCKQLEKIGQQVDREPGDVATPPRKRKKIVVEAPAKEMEKVEEMPHKPQKD
EDLTQDYEEWKRKILENAASAQKATAE

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FIGURE 4478

TATTTTGT CAGATGTGTTGAACCTCGATTAAAGATTGCATTATGACATTCTTGAAGACCGAGTTCCATCAGGACTT
ATTGTTGACTACCACAATCTGTTGTCTCAATGTGAGGAGAGTTACAGGAAATTTTAAATCTGAGAAGCAGTTTG
TCAAATTGTAACCTCTGATTCCGAGCAGGAAAATATCTCCATGGTGGAGGGTTAAAATTGTATTCCGAGATGGAA
CAGTTGAAACAAAAGCTGAAACTCATTGAGAATCCTTTGTTGAGGTATGTGTTGGTTATCAGAAGAATTCTAAC
ATCCAAGCAAAGGGTGTCCGTTCCAGCGGTCAGAAGATCACICATGTGGTCTCCTCCACCATGATGGCTGGTCTC
CTGCGGTCCCCTGCTTACGGACAGGCTTTGCCAGGAGCCTGGTGAGGAAGAAAGAGAAATTCAGTTCCATAGTGAT
CCATTGTCTGCTATAAATGCCTGCTTCGAAGGTGACACTGTTATTGTTTGTCTGGCCATTATGTGGTACATGGC
ACTTTCTCCATTGCTGACTCCATTGAGTTGGAAGGATATGGCCTACCAGATGACATTGTGATAGAAAAGAGGGGC
AAAGGCGACACTTTTGTGGACTGCACTGGTGTGATATTAATCTCAGGCATAAAATTTGTTACAGCATGATGCT
GTAGAGGGAATCTTAATTGTTACCGTGGTAAGACTACGCTGGAAAACGTGTGCTGCAGTGTGAGACGACCGGA
GTCACAGTGCAGGACATCAGCAGAGTTTCTAATGAAGAACTCGGATTTATATGGCGCCAAGGGTGTGGTATAGAA
ATCTACCCTGGGAGTCAGTGCACCCTGAGTGACAATGGGATCCATCACTGCAAGGAAGGGATCCCTCATTAAGGAC
TTCTTAGATGAACATTATGACATTCCCAAGATATCCATGGTGAATAATATAATACATAATAAGAGTTATGGT
GTTGTCTTGGTGAAACCTACAATCTTCTGACCTGCAAGAAAATGCTGAAGATGGAACCTGAAGAAATAAAGCG
CTTAAATTCAGACAAGTGGAGAGCCAGATGTGGCTGAAAGAGTGGATCTAGAAGAGCTGATTGAGTGTGCAACT
GGTAAATGGAGCTTTGTGCAAGAAGTACCCTTCTGAGCAAGTCGAGGGAAATTTGTGAAATGTAAATGAACTA
ATTGCTGCCTCCACACAGAAAGGCCAGATAAAGAAGAAAGGTTGAGTGAACCTGGGGATCACGCAAGCTGATGAC
AACTTAATGTACAGGAGATGTTTGTGGGATTTGTGGGGAACCAAGTTCAGTGAACCTGGGAAAGGTAGTTTTGGC
ACATTTCTTTTCTGACTACAGTGATGTAAGTAGATAGCAAAATACTGGATTTTGCACATGCTGCCCTAAGAAATCA
CTGCTGCCATTGTAGTTTGTCTGATTTGTCTGATTTTATATTGATTATTTGGGCTTGAGTGAAAGGTAGATTTA
TTTCCATTTGCAGGTGTTGCACATAAAACACTCCCTCTTTATAAGAAAATCATAAATGCATATAAAATAGAAAA
TATTTGGAGATTGCTTATCTGAAAGTCTTGCTTTCTTATACACATGGTTCTCTCATATTAAGCCTGGTAGTAACT
TTTTAGTGTAATTACCTTTAGCACTTCAAAGACGAGGAAGTAAGGAAGGGAATGCAAGACTAGTGCATAAAATG
CAATAGGTGTCATATGTACAGCACTTCTTCTTAGAGTTGCCTTTTCATCCCAATTACAGTGAGTCTGATTTCCATC
CTGTATTTGCATAATACTTGTCTTAAATAAAAGCTTTTATGATTGGGAATTTATCTGCCTAATCAGACTTATTA
TTGAGACGTCAATGGGACGCATTTTTCTGTTGAGCTATGCAGTCGTCAAAACAGCGATAGACAGCATAGGAGGTT
TGAAGCAGAAATGAAATGTGTTATTTCAGAGCCAATGTTGTACATAGAGCATTTTCACTATTGCTGAATGGGAATG
ATTAAAAACAAGGTATTTTTCGGGCCAGGCGGTGGCTCACGCTTGTAATCGCAGCACTTTGGGAGGCTGAGGCAG
GAGGATCACTTGAGCCCAGGAGTTCAAGACTAGCCTAGGCAACATAGTGAGACCCTGTCTCTACTAAAAATAAAT
TTAAAAAAAATTAGCTGAGTGTGGTGGTGCATGCATGTAGTTCCAGCTACTCAGGAGGCTGAGGCTAGAGGATCC
TTGAGCCCAGGAGGTTGAGGCTGCAGTGAGGTGTGATTGCGCCACTGCATTCCAGCTTGGGCGACAGAGCGAGAC
CCAGTCTCAAAAAAAAAAAAAAGTATTTTCTCTTACCGTTACAGTATTCTGATTATATTACTGACACAGTCAAA
ATGATTAACTGTACAACCTGTATCTGCTGGGTGTTCTTGTTATCATATTGTAACAGCTTTAAAAATATTTATA
TTTTAAAACTGTATGTGACATTAATATGCCTAATGATTAAAAATTATAGTGATGAAATAACAAAA

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FIGURE 4479

GCTGCAACACCGAGCGGAGGAGGCAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCACGGCTGGGATCACC
ACCATTGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGAGCGC
CTCCAGCAAGAAGTTGAGGGAGAAAGGCGGGCCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCA
GAAAAAGCTGCTGGTGAGAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCTTTAAAAGATGAAGAAAAGATG
GAACTCCAAGAACTCCAACCTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCT
CGTAAGTTGGTGACCATTTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGACAGAGTCCCCTTGCCGA
GAGATGGATGAGCAGATTGACTGATGGACCAGAACCTGAAGTGTCTGAGTGCTGCTGAAGAAAAGTACTCTCAA
AAAGAAGACAAATATGAGGAAGAAATCAAGATTTTTACTGATAAACCCAGGAGGCAGAGACCTGTGCTGAGTTT
GCTGAGCGATCGGTAGCCAAGCTGGAAGAGACAATTGATGACTTGGAAGATAAACTGAAATGCACCAAAGAGGAG
CACCTCTGTACACAAAGGATGCTGGACCAGACTCTGCTTGACCTGAATGAGATGTAGAATGCCCCAGTCCCACCC
TGCTGCTGCTCCTCCCTGTGACCCAGACTCCGCCTGAGGCCAGCCTGCCAGAAGCTGACCTTTAACTGAGGGCTG
ATCTTTAACTGGAAGGCTGCTTTCTCCTTTCACCGCCCCCTCCTTCCCTGTGTCTTTTTCGCCAAACTGTCTCTG
CCTTTCCCGGAGAAATCCAGCTGGGCTAGAGGCTGAGCACCTTTGGAAACAACATTTAAGGGAATGTGAGCACAA
TGCATAATGTCTTTAAAAAGCGTGTGTGATGTACACATTTTGTAATTACCTTTTTTGTGTGTTTGTAGCAAACA
TTTGTAACCATTTCCAAATAATCCACAGCCCTGAAGCAGCAATCAAATCCCTTTCTCACTTTTGGAAGGTGACT
TTTACCTTAATGCATATTTCCCTCTCCATAGAGGAGAGGAAAAGGTATAGGCTTGCCTTGCTGAGAGCCAAACA
GAGCCAGGGAGACTCCACTGTGGGAAACCTCATTGCTCTGTACAAAGTACTAGCTAAACCAGAAAGGTGATTCC
AGGAGGAGTTAGCCCAACAACAACAAAAACAAAAATGTGCTGTTCAAGTTTTAGCTTTAAGATATCTTTGGATA
ATATTATTTCTATTTTTTATTTTTTTCATTAGAAATGATCAAATTAAGATGGTTAAGACCTCTGAGACCAAACT
TTCTCTCATCTCTACCCCTCCCAACTGCTCACAGAACGGATCATGTCCCTTATGTTGAGGTGACCACTTAAT
TGCTTTCCCTGCCTCCTTGAAAGAAAGAAGATTGTGTTTTCTCCACTGATTTAGCCATGTGAACTCATCTCATT
CCCTTTTCTGGGTTTCAAGCTGCTGTCTCTAGAAAGTGCCATCTCATTGTGCTTCGTATCAGTCAGTGCTGGAGAA
ATCTTGAATAGCTTATGTACAAAACCTTTTTAAATTTTATATTATTTTAAACTTTGCTTCTTTGGGTTTGTGGCA
CCCTGGCCACCCCATGTGGCTGTGACAGCCTCTGCAGTCCGTGGGCTGGCAGTTTGCTGATCTGTTAAATTTCT
TTCCCTACCCAGTCCCCATTTTCTGGTAAGGTTTCTAGGAGGTCTGTTAGGTGTACATCCTGCAGCTTATTGGCT
TAAATGTACTCTCCTTTTATGTCGTCTCTTTGGGGCTGATTGGGAGAAAGAGAAATCAATAGTGCAACTGTTTT
GATACTGAATATTGACAAGTGCTTTTTTGAATAAAGAACCAGTCCCTCC

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FIGURE 4480

GGAGGAGGCAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCACGGCTGGGATCACCACCATTGAGGCGGTG
AAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGAGCGCCTCCAGCAAGAAGTT
GAGGGAGAAAGGCGGGCCCGGAAACAGAGGTATGAAGGTTATTGAAAACCGGGCTTTAAAGATGAAGAAAAGAT
GGAACTCCAAGAACTCCAACCTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGC
TCGTAAGTTGGTGACCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGACAGAGTCCCGTTGCCG
AGAGATGGATGAGCAGATTAGACTGATGGACCAGAACCTGAAGTGTCTGAGTGCTGCTGAAGAAAAGTACTCTCA
AAAAGAAGACAAATATGAGGAAGAAATCAAGATTTTTACTGATAAACCCAAGGAGGCAGAGACCTGTGCTGAGTT
TGCTGAGCGATCGGTAGCCAAGCTGGAAAAGACAATTGATGACTTGGAAGATAAACTGAAATGCACCAAAGAGGA
GCACCTCTGTACACAAAGGATGCTGGACCAGACTCTGCTTGACCTGAATGAGATGTAGAAATGCCCCAGTCCCACC
CTGCTGCTGCTCCTCCCTTTTCCCGGAGAATCCAGCTGGGCTAGAGGCTGAGCACCTTTGGAAACAACATTTAAG
GGAATGTGAGCACAATGCATAATGTCTTTAAAAAGCGTGTGTGATG

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FIGURE 4481

MMQRSELSASSKKLREKGGPGNRGMKVIENTRALKDEEKMELQELQLKEAKHIAEEADRKYEEVARKLVTIEGDLE
RTEERAELTESRCREMDEQIRLMDQNLKCLSAAEEKYSQKEDKYEEEIKIFTDKPKEAETCAEFAERSVAKLEKT
IDDLEDKLLKCTKEEHLCTQRMLDQTLDDINEM

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FIGURE 4482

GGAGGCTGCAACACCGAGCGGAGGAGGCAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCACGGCTGGGAT
CACCACCATTGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGA
GCGCCTCCAGCAAGAAGTTGAGGGAGAAAGGCGGGCCCGGAAACAGGCTGAGGCTGAGGTGGCCTCCTTGAACCG
TAGGATCCAGCTGGTTGAAGAAGAGCTGGATCGTCCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGA
AGCAGAAAAAGCTGCTGGTGAGAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCTTTAAAAGATGAAGAAAA
GATGGAACTCCAAGAACTCCAACCTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGT
GGCTCGTAAGTTGGTGACCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGACAGAGTCTACTCT
CAAAAAGAAGACAAATATGAGGAAGAAATCAAGATTTTTACTGATAAACCCAAGGAGGCAGAGACCTGTGCTGAG
TTTGCTGAGCGATCGGTAGCCAAGCTGGAAAAGACA

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FIGURE 4483

ATGTCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACA
ACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAAC
ACGAAGCGCTCCAGGGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGG
CCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGATGCC
CACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTT
GAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACAGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTT
GTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTTCAGAAATACCATACTGTGAATGGCCACAACCTGT
GAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGGAGAATGCAAGGACCT
GAGCTTCTCTTCTCAAGCCCCTCACAGCGACTGGGCCTTTACAACCTCAATGTTTCAAGCTCTGGTACTGTTTAA

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TGTTTCCGCTGCATCCAGACTTCTCTCAGGCGGTGGCTGGAGGCTGCATATCTGGGGCTTTAAACATACAAAGGGA
TGTCCAGGACCTGCGGCGGCGGCGGCGGCGGGGGCTGGGGCGCGGGGGCCGGACCATGAGCCGCTGAGCCGG
GCAAACCCCAGGCCACCGAGCCAGCGGACCCTCGGAGCGCAGCCCTGCGCCGCGGAGCAGGCTCCAACCAGGCGG
CGAGGCGGCCACACGCACCAGGCCAGCGACCCCCGGGCGACGCGCGGGGCCAGGGAGCGCTACGATGGAGGCGCT
AATGGCCCCGGGCGCGCTCACGGGTCCCCCTGAGGGCGCTCTGTCTCTTGGGCTGCCTGCTGAGCCACGCCGCCG
CGCGCCGTCGCCCATCATCAAGTTCCCCGGCGATGTCGCCCCAAAACGGACAAAGAGTTGGCAGTGCAATACCT
GAACACCTTCTATGGCTGCCCAAGGAGAGCTGCAACCTGTTTGTGCTGAAGGACACACTAAAGAAGATGCAGAA
GTTCTTTGGACTGCCCCAGACAGGTGATCTTGACCAGAATACCATCGAGACCATGCGGAAGCCACGCTGCGGCAA
CCCAGATGTGGCCAACTACAACCTTCTTCCCTCGCAAGCCCAAGTGGGACAAGAACCAGATCACATACAGGATCAT
TGGCTACACACCTGATCTGGACCCAGAGACAGTGGATGATGCCCTTTGCTCGTGCCCTTCCAAGTCTGGAGCGATGT
GACCCCACTGCGGTTTTTCTCGAATCCATGATGGAGAGGCAGACATCATGATCAACTTTGGCCGCTGGGAGCATGG
CGATGGATACCCCTTTGACGGTAAGGACGGACTCCTGGCTCATGCCCTTCGCCCCAGGCACTGGTGTGGGGGAGA
CTCCCATTTTGATGACGATGAGCTATGGACCTTGGGAGAAGGCCAAGTGGTCCGTGTGAAGTATGGGAACGCCGA
TGGGGAGTACTGCAAGTTCCCTTCTTGTTCATGGCAAGGAGTACAACAGCTGCACTGATACCGGCCGACGCGA
TGGCTTCCCTCTGGTGCTCCACCACCTACAACCTTTGAGAAGGATGGCAAGTACGGCTTCTGTCCCCATGAAGCCCT
GTTCAACATGGGCGGCAACGCTGAAGGACAGCCCTGCAAGTTTCCATTCCGCTTCCAGGGCACATCCTATGACAG
CTGCACCACTGAGGGCCGCACGGATGGCTACCGCTGGTGCGGCACCACCTGAGGACTACGACCGCGACAAGAAGTA
TGGCTTCTGCCCTGAGACCGCCATGTCCACTGTTGGTGGGAACCTCAGAAGGTGCCCCCTGTGTCTTCCCTTTCAC
TTTCTTGGGCAACAAATATGAGAGCTGCACCAGCGCCGGCCGCACTGACGGAAGATGTGGTGTGCGACCACAGC
CAACTACGATGATGACCGCAAGTGGGGCTTCTGCCCTGACCAAGGGTACAGCCTGTTCTCTGTGGCAGCCCACGA
GTTTGGCCACGCCATGGGGCTGGAGCACTCCCAAGACCCTGGGGCCCTGATGGCACCCATTTACACCTACACCAA
GAACCTTCCGTCTGTCCCAGGATGACATCAAGGGCATTGAGGAGCTCTATGGGGCCTCTCCTGACATTGACCTTGG
CACC GGCCCCACCCCCACGCTGGGGCCCTGTCACTCCTGAGATCTGCAAACAGGACATTGTATTTGATGGCATCGC
TCAGATCCGTGGTGAGATCTTCTTCTTCAAGGACCGGTTCAATTTGGCGGACTGTGACGCCACGTGACAAGCCCAT
GGGGCCCCCTGCTGGTGGCCACATTCTGGCCTGAGCTCCCGGAAAAGATTGATGCGGTATACGAGGCCCCACAGGA
GGAGAAGGCTGTGTTCTTTGCAGGGAATGAATACTGGAATCTACTCAGCCAGCACCCCTGGAGCGAGGGGTACCCCAA
GCCACTGACCAGCCTGGGACTGCCCCCTGATGTCCAGCGAGTGGATGCCGCCTTTAACTGGAGCAAAAACAAGAA
GACATACATCTTTGCTGGAGACAAATTTCTGGAGATACAATGAGGTGAAGAAGAAAATGGATCCTGGCTTCCCAA
GCTCATCGCAGATGCCCTGGAATGCCATCCCCGATAACCTGGATGCCGTCGTGGACCTGCAGGGCGGCGGTACAG
CTACTTCTTCAAGGGTGCCTATTACCTGAAGCTGGAGAACCAAAGTCTGAAGAGCGTGAAGTTTGAAGCATCAA
ATCCGACTGGCTAGGCTGCTGAGCTGGCCCTGGCTCCACAGGCCCTTCTCTCCACTGCCTTCGATACACCGGG
CCTGGAGAACTAGAGAAGGACCCGGAGGGGGCTGGCAGCCGTGCCTTCAGCTCTACAGCTAATCAGCATTCTCAC
TCCTACCTGGTAATTTAAGATTCCAGAGAGTGGCTCCTCCCGGTGCCCAAGAATAGATGCTGACTGTACTCCTCC
CAGGCGCCCCCTTCCCCCTCCAATCCCACCAACCCCTCAGAGCCACCCCTAAAGAGATACTTTGATATTTTCAACGC
AGCCCTGCTTTGGGCTGCCCTGGTGCTGCCACACTTCAGGCTCTTCTCCTTTCAACAACCTTCTGTGGCTCACAGA
ACCCTTTGGAGCCAATGGAGACTGTCTCAAGAGGGCACTGGTGGCCCGACAGCCTGGCACAGGGCAGTGGGACAGG
GCATGGCCAGGTGGCCACTCCAGACCCTGGCTTTTCACTGCTGGCTGCCTTAGAACCTTTCTTACATTAGCAGT
TTGCTTTGTATGCACTTTGTTTTTTTTCTTTGGGCTTGTTTTTTTTTTTTCCACTTAGAAATTGCATTTCTGACAG
AAGGACTCAGGTTGTCTGAAGTCACTGCACAGTGCATCTCAGCCCACATAGTGATGGTTCCCTGTTCACCTCTAC
TTAGCATGTCCCTACCGAGTCTCTTCTCCACTGGATGGAGGAAAACCAAGCCGTGGCTTCCCGCTCAGCCCTCCC
TGCCCCCTCCCTTCAACCATTCCCCATGGGAAATGTCAACAAGTATGAATAAAGACACCTACTGAGTGGC

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FIGURE 4485

CACATGTAAACTACTTGAAGTCCATTTTCATCTTTTTTCATACCATCTCTAAGATTGCTGCCGCATTTGCTTGTTA
AACTGAAAGCATGTTTTCTTGCAAAGGCTCTATTGGAAGGAGCAGATCGAGGTCTTGGAGAAGCTCTTGGAGGCCT
CTTTGGAGGAGGTGGTCAGAGAAGAGAAGGAGGAGGAAGAAATATTGGAGGGATAGTTGGAGGAATTGTGAATTT
TATCAGTGAGGCTGCAGCAGCTCAGTATACTCCAGAACCGCCTCCCACTCAGCAGCATTTACCAGTGTGGAGGC
CTCAGAAAGTGAGGAAGTTAGGCGATTTGGCAACAATTTACACAGCTGGCTGGACCAGACATGGAGGTGGGTGC
CACTGATCTGATGAATATTCTCAACAAAGTCCTTTCTAAGCACAAAGATCTTAAGACTGACGGTTTTAGTCTTGA
CACCTGCCGGAGCATTGTGTCTGTTCATGGACAGTGACACGACTGGTAAGCTGGGCTTTGAAGAATTTAAGTATCT
GTGGAACAACATCAAGAAATGGCAGTGTGTTTATAAGCAGTATGACAGGGACCATTCTGGGTCTCTGGGAAGTTC
TCAGCTGCGGGGAGCTCTGCAGGCCGCAGGCTTCCAGCTAAATGAACAACCTTTACCAAATGATTGTCCGCCGGTA
TGCTAATGAAGATGGAGATATGGATTTTAAACAATTTATCAGCTGCTTGGTCCGCCTGGATGCCATGTTTCGTGC
CTTCAAGTCTCTGGATAGAGATAGAGATGGCCTGATTCAAGTGTCTATCAAAGAATGGCTGCAGTTGACCATGTA
TTCCTGAAGTGGGAAGTGAAGAAGTCAAGATCCTCCCTGGAGGACAGGACTGAAAACCTTGCCAAGCTGTACACAG
TTGCTGATACCCTGTGCAACAGCTCTCATTTCTGGCAAGCTCTTTCACAACCCTACATATTTCTGATCATGTGC
TGCCTTTTACTGCTGAATTAACACAGATATTTATAAAAA

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FIGURE 4486

MFLAKALLEGADRGLGEALGGLFGGGGQRREGGGRNIGGI VGGIVNFISEAAAAQYTPEPPPTQQHFTSVEASES
EEVRRFRQQFTQLAGPDMEVGATDLMNII LNKVLSKHKDLKTDGFSLDTCRSIVSVMDSDTTGKLGFEFEFKYLWNN
IKKWQCVYKQYDRDHSGSLGSSQLRGALQAAGFQLNEQLYQMIVRRYANEDGDMDFN NFISCLVRLDAMFRAFKS
LDRDRDGLIQVSIKEWLQLTMYS

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FIGURE 4487

CCTCGGCGTGCCCCAGGACCGGTAAAGTTCTCTCGCCAGCCGCATCCATGCTTCTGGCGCGGATGAACCCGCA
GGTGACGCCCCGAGAACAACGGGGCGGACACGGGTCCAGAGCAGCCCCCTTCGGGCGCGCAAACTGCGGAGCTGCT
GGTGGTGAAGGAGCGCAACGGCGTCCAGTGCCCTGCTGGCGCCCGCGACGGCGACGCGCAGCCCCGGGAGACCTG
GGGCAAGAAGATCGACTTCTGCTGTCCGTAGTCGGCTTCGCAGTGGACCTGGCCAACGTGTGGCGCTTCCCTA
CCTCTGCTACAAGAACGGCGGCGGTGCCTTCTTGATCCCGTACACACTGTTCTTATCATCGCGGGGATGCCCT
GTTCTACATGGAGCTGGCTCTGGGACAGTACAACGGGAGGGGGCTGCCACCGTTTGGAAAATCTGCCATTCTT
CAAAGGCGTTGGCTATGCTGTATCTGATCGCCCTGTACGTTGGCTTCTACTACAACGTATCATCGCCTGGTC
ACTCTACTACCTCTTCTCCTCCTTCAACCTGACCTGGACCGACTGTGGCCACACCTGGAACAGCCCCAA
CTGTACCGACCCCAAGCTCCTCAATGGCTCCGTGCTTGGCAACCACACCAAGTACTCCAAGTACAAGTTCACGCC
GGCAGCCGAGTTTATGAGCGTGGTGTCTGACCTTACGAGAGCAGCGGGATTATGACATCGGCCTGCCCA
GTGGCAGCTCTTGTCTGTCTGATGGTCTGTCATCGTCTTGTATTTAGCCTCTGGAAGGGGTGAAGACATC
AGGAAAGGTGGTGTGGATCACAGCCACGCTGCCTTACTTCGTGCTGTTCTGCTCCTGGTCCATGGCGTCACGCT
GCCCCGAGCCTCCAATGGCATCAATGCCTACCTGCACATCGACTTCTACCGCTTGAAAGAGGCCACGGTATGGAT
TGATGCCGCAACTCAGATATTTTTTCTTGGGGGCTGGATTTGGAGTATTGATTGCATTTGCCAGTTACAACAA
ATTTGACAACAACCTGTTACAGGGATGCCCTGCTGACCAGCAGCATCAACTGTATCACCAGCTTCGTCTCTGGGT
CGCCATCTTCTCCATCCTTGGTTACATGGCCCCATGAACACAAGGTCAACATTGAGGATGTGGCCACAGAAGGAGC
TGGCCTAGTGTTCATCCTGTATCCAGAGGCCATTTCTACCTGTCTGGATCTACATTCTGGGCTGTTGTGTTTTT
CGTCATGCTCCTGGCGCTGGGCCTTGACAGCTCAATGGGAGGCATGGAGGCTGTATCACGGGCCTGGCAGATGA
CTTCCAGGTCTGAAGCGACACCGGAACTCTTACATTTGGCGTCACCTTCAGCACTTTCTTCTCGCCCTGTT
CTGCATAACCAAGGGTGGAAATTTACGTCTTGACCCTCCTGGACACCTTTGCTGCGGGCACCTCCATCCTTTTTGC
TGTCTCATGGAAGCCATCGGAGTTTCTGGTTTATGGAGTGGACAGGTTTCAGCAACGACATCCAGCAGATGAT
GGGTTTCAGGCCGGGTCTATACTGGAGACTGTGCTGGAAGTTCGTGAGTCTGCTTCTCTGTTCTGTTGTTGT
GGTCAGCATCATCAACTTCAAGCCACTCACCTACGACGACTACATCTTCCCGCCCTGGGCCAACTGGGTGGGGTG
GGGCATCGCCCTGTCTCCATGGTCTGTTGCCATCTACGTATCTATAAGTTCTCAGCACGCAGGGCTCTCT
TTGGGAGAGACTGGCCTATGGCATCACGCCAGAGAACGAGCACCACTGGTGGCTCAGAGGGACATCAGACAGTT
CCAGTTGCAACACTGGCTGGCCATCTGAGCCTGCCTGGAGGAGAAGGAGGAACCCCCATGCCAATGTCCAGGTCA
CAGGCATCCGCTGCGCTCCACCTCGGACACCATCTTGGGATTCCTCCCCTGGAAAGTTGTCTTTCTGATCCTCT
CTTCTTTTCCCATTTACAAATGATTTCTGACTGTAGTTTTTGTTCACCTTCTGTGCATCTGGCCTGGGGGCTGT
TAGCTCAGAGGAGAGGAGCAAAACAGGAAAATGACTT

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FIGURE 4488

MLLARMNPQVQPENNGADTGPEQPLRARKTAELLVVKERNGVQCLLAPRDGDAQPRETWGKKIDFLLSVVGFAVD
LANVWRFPYLCYKNGGGAFLIPYTLFLIIAGMPLFYMELALGQYNREGAATVWKICPFFKGVGYAVILIALYVGF
YYNVI IAWSLYYLFSSFTLNLPWTD CGHTWNSPCTDPKLLNGSVLGNHTKYSKYKFTPAAEFYERGVLLHLESS
GIHDIGLPQWQLLLCLMVVVIVLYFSLWKGVKTSKGVVWITATLPYFVLFVLLVHGVTLPGASNGINAYLHIDFY
RLKEATVWIDAATQIFFSLGAGFGVLI AFASYNKFDNNCYRDALLTSSINCITSFVSGFAIFSILGYMAHEHKVN
IEDVATEGAGLVF ILYPEAISTLSGSTFWAVVFFVMLLALGLDSSMGGMEAVITGLADDFQVLKRHRKLFTFGVT
FSTFLLALFCITKGGIYVLTLLDTFAAGTSILFAVLMEAIGVSWFYGVDRFSNDIQQMMGFRPGLYWRLCWKFVS
PAFLLFVVVSIINFKPLTYDDYIFPPWANWVGWGIALLSSMVLVPIYVIYKFLSTQGS LWERLAYGITPENEHHL
VAQRDIRQFQLQHWLAI

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FIGURE 4489

GAACGTGTCGCCCTTCCAGGATGTGGCTCCCTGCTCTTGTCTGGCCACTCTCGCTGCTTCCGCGGCTTGGGGGCA
TCCGTCTCTCGCCACCTGTGGTGGACACCGTGCATGGCAAAGTGCTGGGGAAGTTCGTACAGCTTAGAAGGATTGCTC
ACAGCCTGTGGCCATTTTCCTGGGAATCCCTTTTGCCAAGCCGCCTCTTGGACCCCTGAGGTTTACTCCACCGCA
GCCTGCAGAACCATGGAGCTTTGTGAAGAATGCCACCTCGTACCCTCCTATGTGCACCCAAGATCCCAAGGCGGG
GCAGTTACTCTCAGAGCTATTTACAAACCGAAAGGAGAACATTCTCTCAAGCTTTCTGAAGACTGTCTTTACCT
CAATATTTTACACTCCTGCTGACTTGACCAAGAAAAACAGGCTGCCGGTGATGGTGTGGATCCACGGAGGGGGGCT
GATGGTGGGTGCGGCATCAACCTATGATGGGCTGGCCCTTGCTGCCCATGAAAACGTGGTGGTGGTGACCATTCAC
ATATCGCCTGGGCATCTGGGGATTCTTCAGCACAGGGGATGAACACAGCCGGGGGAACTGGGGTCACCTGGACCA
GGTGGCTGCCCTGCGCTGGGTCCAGGACAACATTGCCAGCTTTGGAGGGAACCCAGGCTCTGTGACCATCTTTGG
AGAGTCAGCGGGAGGAGAAAGTGCTCTGTCTTCTGTTTGTCTCCATTGGCCAAGAACCTCTTCCACCGGGCCAT
TTCTGAGAGTGGCGTGGCCCTCACTTCTGTTCTGGTGAAGAAAGGTGATGTCAAGCCCTTGGCTGAGCAAATTGC
TATCACTGCTGGGTGCAAAACCACCACCTCTGCTGTCATGGTTCACTGCCTGCGACAGAAGACGGAAGAGGAGCT
CTTGGAGACGACATTGAAAATAAATTCTTATCTCTGGACTTACAGGGAGACCCCAGAGAGAGTCAACCCCTTCTG
GGCACTGTGATTGATGGGATGCTGCTGCTGCTGAAAACACCTGAAGAGCTTCAAGCTGAAAGGAATTTCCACACTGTC
CCCTACATGGTTCGGAATTAACAAGCAGGAGTTTGGCTGGTTGATTCCAATGTTGATGAGCTATCCACTCTCCGAA
GGGCAACTGGACCAGAAGACAGCCATGTCACTCCTGTGGAAGTCCTATCCCCTTGTTTGCATTGCTAAGGAACTG
ATTCCAGAAGCCACTGAGAAATACTTAGGAGGAACAGACGACACTGTCAAAAAGAAAGACCTGTTCTCTGGACTTG
ATAGCAGATGTGATGTTTGGTGTCCCATCTGTGATTGTGGCCCGGAACACAGAGATGCTGGAGCACCACCTAC
ATGTATGAGTTTCACTACCGTCCAAGCTTCTCATCAGACATGAAACCCAAGACGGTGATAGGAGACCACGGGGAT
GAGCTCTTCTCCGTCTTTGGGGCCCCATTTTAAAAAGAGGGTGCCTCAGAAGAGGAGATCAGACTTAGCAAGATG
GTGATGAAATTCTGGGCCAACTTTGCTCGCAATGGAAACCCCAATGGGGAAGGGCTGCCCCACTGGCCAGAGTAC
AACCAGAAGGAAGGGTATCTGCAGATTGGTGCCAACACCCAGGCGGCCAGAAAGCTGAAGGACAAAGAAGTAGCT
TTCTGGACCAACCTCTTTGCCAAGAAGGCAGTGGAGAAGCCACCCAGACAGAACACATAGAGCTGTGAATGAAG
ATCCAGCCGGCCTTGGGAGCCTGGAGGAGCAAAGACTGGGGTCTTTTGCGAAAGGGATTGCAGGTTTCAAGGCA
TCTTACCATGGCTGGGGAATTGTCTGGTGGTGGGGGACAGAGGCCATGAAGGAGCAAGTTTTGTATTT
GTGACCTCAGCTTTGGGAATAAAGGATCTTTTGAAGGCC

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FIGURE 4490

CTCCGCCAGGACCCCCGAGGGCGAGCGCCTGGGGGGCGCGGCCCTTGCTCGCGGGAGCGCTGCTGAGGGAGAGTGG
TTCTAGTAAATACCGCTTGCTGTGTTTTGATGTTGGTGGCTAAGCTCATCCAGTGTATTGTGTTTTGGCCCTCTTC
GAGTGAGTGAGAGACAGCATCTCAAAGACAAATTTTGAATTTTATTTTCTACAAGTTTCATTTTCATCTTTGGTG
TGCTGAATGTCCAGACAGTGGAGAGGTGGTCATGTGGTGCCTCTGGTTTGCCGGACTTGTCTTTCTGCACCTGA
TGGTTCAGCTCTGCAAGGATCGATTTGAATATCTTTCCTTCTCGCCACCACGCCGATGAGCAGCCACGGTCGAG
TCCTGTCCCTGTTGGTTGCCATGCTGCTTTCCTGCTGTGGACTGGCGGCCGTCTGCTCCATCACCGGCTACACCC
ACGGAATGCACACCTTGGCTTTCATGGCTGCAGAGTCTCTTCTTGTGACAGTGAGGACTGCTCATGTGATTTTAC
GATACGTAATTCACCTCTGGGACCTCAACCACGAAGGGACGTGGGAAGGAAAGGGGACGTATGTCTATTACACAG
ACTTGTGTCATGGAGCTCACTCTCCTGTCCCTGGACCTCATGCACCATATTACATGTTGTTATTTGGCAACATCT
GGTTATCCATGGCCAGCCTGGTCATCTTTATGCAGCTGCGTTACCTGTTTCATGAGGTGCAACGTCGAATTCGTC
GGCACAAGAATACTACGTGTGGTTGGAACATGGAGGCCAGGTTTGCAGTTGCAACTCCAGAGGAGCTGGCTG
TCAACAATGACGACTGTGCCATCTGTTGGGACTCCATGCAGGCTGCGCGGAAACTGCCCTGTGGACATCTTTTCC
ACAACCTCCTGTCTTCGTTCTGGCTAGAACAAGACACCTCCTGTCCAACATGCAGAATGTCTCTTAATATTGCCG
ACAATAATCGTGTGAGGAAGAACAATCAAGGAGAGAACTTGGATGAGAATTTGGTTCTGTAGCAGCAGCCGAAG
GAGACCTCGCTTAAACCAACACAATCACTTCTTCCATTTTCGATGGGTCTCGGATTGCGAGCTGGCTGCCGAGTT
TTTCGGTTGAAGTGATGCACACCACCAACATCTTGGCATTACGCAGGCCAGCAACTCCAGCTCAATGCAATGG
CTCATCAGATTCAGAGATGTTTCCCCAGGTTCCATACCATCTGGTACTGCAGGACCTCCAGCTGACACGCTCAG
TTGAAATAACAACAGACAATATTTTGAAGGACGGATTCAAGTACCTTTTCTACACAGCGGTGAGATAGCATCA
GACCTGCATTGAACAGTCTGTGGAAAGGCCAGTCAGCAGGAAGAGGGGAGAACTTCTGCTCAGACCGAGC
GTGTGCCACTGGACCTCAGTCCTCGCCTGGAGGAGACGCTGGACTTCGGCGAGGTGGAAGTGAGCCCCAGTGAGG
TGGAAGACTTTCGAGGCTCGTGGGAGCCGCTTCTCCAAGTCTGCTGATGAGAGACAGCGCATGCTGGTGACGCTA
AGGACGAACTCCTCCAGCAAGCTCGCAAACGTTTCTTGAACAAAAGTTCTGAAGATGATGCGGCTGACAGCT
TCCTCCCCCTCGGAAGGTGCGTCTCTGACCCCGTGACCTGCGTGAAGGATGCTGGCTGCCGCCGCGGAACGGA
GGCTTCAGAAAGCAGCAGACCTCCTAGCGCTCCCTTGCCCTTCTCAGCTGCCTCCTGCGCCCTGTGCCCGACTGAC
TGGAGGAGGCTGTCCCAATTCTGCCCGCTCCATGGAAAAGCGGGCTTGACTGCATTGCCGCTGTATAAAGCATG
TGGTCTTATAGTGTGTTGGACAGCTGATAAATTTAATCCTTCTTTGTAATACTTTCTATGTGACATTTCTCTTCCC
CTTAGAAACACTGCAAAATTTAAGTGTAGGTATGATCTCTTCTGGTGTGACTGGACTGCTTGGGGTGGGGGACG
ATCAGGAGGAAGTGAGCAGTCGCCTGCCTGCAGCAGGCAGCTTCTACTCCTGCCTCATGCGTACGTCCCACAAAT
GCAGGTGTCCTGAGCACCACACCCAGTGGGAAGAGTGTGGGGGAGGCGCACAGTGTGAGCCCCGCCCCACGTGCT
GGGGTAACATCTGTTATCAAACCTGCTGTGCTTGTGTTGTTGGAAGCATGTAGACTGTGCCAGAGGCCAGACCCACGGG
CTCATGCACCCCTGAGCCAGCAGGGCATCTTGGAAAAGGAACCTTGGTTTCGATACCTGGAGCAGAGGAGGGGAA
AGTCCAGGGCTATAGGGTGTGATGAAGTCACCCCTTCTGTCCCACTACATCTGGGACTGACTTTCCGAGCCTCC
AGTCCAAAGCCGGCTTGATTTCCGTGAACCTGTTGCTCCTGCATCTCATGAGTGTGCCCCATGGGTCCCTCCC
CTCTCAGCATTTCTTGTCCCGTCTGGACCTGGGGAGTGGTTAGGCAGCAAGCTTTGGTTTATGGTTTTTCATTCA
TTGGTGAAGTAAATTAGGCAGTGCTAAAGCCTGTGGGTTTGGTCTTGAACAAGATGTGGGCCCTGCAAGATGGG
AGAGTAAACCTTGAAGGGCTTTATTAAAGAAATAAAAAAGAACTTTGTATCTTTTATCCTGGGAGCACTGCGTT
TTCTAGCTGTGTTATTCTGGTTTAATTTCAGCAGAGAAGGTAAGGTGTGAACCTACCTGCCTTGGAGAGGGCCC
AGGTCCCAAATCTCTTCAAATTTCTTCAATGTTTAACTTTAAGGATTTGAACCATGAAGTCATAGGTTACAGACC
TCAGTTTTATGCCCATTTGGATTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTACTCTTTGAAAGCTTTGTTT
TGTGGTAGTCCTTTTGGGAAGAATCCAGTATTATCCACAATTATTGGCAAAGTTAAATGTATTTTACATAACGG
AAAGTTTTTGAATGTTGAAAAGTAATTGAAAAGGTGATAGGTAAATTTTAGGCAAAGATAATTTATTTCAAT
AAATCTTTCAAAGCCTTACCTTGAATGCTGTTAGTAAATTTCTGTGATTTTTTTTTTTTAAATTTGTTTTGCTGA
GAGCATAGCTATTTGTTTTTATTGTAA

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FIGURE 4491

CTTGTTTCGICTCACTGGGTGTGAGCTCCAGCATCCCCCTTTGCTCGAAATGGACCCCAACTGCTCTTGCGCCACTGG
TGGCTCCTGCACGTGCGCCGGCTCCTGCAAGTGCAAAGAGTGCAAATGCACCTCCTGCAAGAAGAGTGAGTGCGG
GGCCATCTCCAGGAATCTGGGGCTGTGGGCTCAGGTTGGGAGGGAACTCAAGGCTGGCCCTGAGTGCATCCTTCTG
GGGAAC TGGGCTTTCTTTGCCCCATTGCCCCGTGTCATTCCCTCTCCAGGCTTTCTGCCCTAAATTCAGATGGGG
CAGGACAGCATTTTTCTCGTGGGACACAAACCCCAACTGTACCCCTATGGTTTCAGAACAGAGCTGTGCCAGAC
GAAAAAAAGCATCCTCTGGGTCTGGGTTCTGAGCTCGAGCCAGGCTTGCTATTAGGGCAGGGAGGTGCCCGGTCA
AGTCTACTGCCACCTCTCACTCTCCCCTTCTTCCCCAGGCTGCTGTTCTGCTGCCCCGTGGGCTGTGCCAAGTG
TGCCCAGGGCTGCGTCTGCAAAGGGGCATCGGAGAAGTG CAGCTGCTGTGCCTGATGTGGGAACAGCTCTTCTCC
CAGATGTAAATAGAACAACCTGCACAACCTGGATTTTTTTAAAAATACAACACTGAGCCATTTGCTGCATTTCTT
TTTATACTAAATATGTGACTGACAATAAAAAACAATTTTGACTTT

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FIGURE 4492

MDPNCSCATGGCTCAGSCKCKECKCTSCCKSECGAISRNGLWLRLGGNSRLALSASFSGTGLSLPSLPVSFPL
QAFCPKFRWGRTAFFSWDTNPCTPYGFRTELCQTKKSILWVWLSSSQACY

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FIGURE 4493

CCGCTGCGTGTTTTCTCTTGATCGGGAACCTCTGCTTCTCCTTGCCCTCGAAATGACCCCAACTGCTCCTGCTC
 GCCTGTTGGCTCCTGTGCCTGTGCCGGCTCCTGCAAATGCAAAGAGTGCAAATGCACCTCCTGCAAGAAGAGCTG
 CTGCTCCTGCTGCCCTGTGGGCTGTGCCAAGTGTGCCCAGGGCTGCATCTGCAAAGGGACGTCAGACAAGTGCAG
 CTGCTGTGCCCTGATGCCAGGACAGCTGTGCTCTCAGATGTAAATAGAGCAACCTATATAAACCTGGATTTTTTTT
 TTTTTTTTTTTTGTACAACCCTGACCCGTTTGCTACATCTTTTTTCTATGAAATATGTGAATGGCAATAAATTC
 ATCTAGACT

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FIGURE 4494

MDPNCSCSPVGSCACAGSCKCKECKCTSCCKSCCSCCPVGCAKCAQGCICKGTSDKSCCA

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FIGURE 4495

CTGAGCGACAGCAAGTGCAGCGGGCTCCTACCCCGGGTGAGGGGTGGCCTCCGCGTGGGATCGTGCCCTCTTCAG
CCCGCTCCTGTCCCCGACATCACGTGTATTCCGCACGTCCCCTCCGCGCTGTGTGTCTACTGAGACGGGGAGGCG
TGACAGGGCCCCGGGTCCCTTCTCAGTGGTGCTCTGTGCTTCAGGGCAAGCTCCCCGTCTCCGGGCGCACTTCCCT
CGCCTGTGTTTCGGTCCATCCTCCTTTCTCCAGCCTCCTCCCCTCGCAGGTGGGATCGTCGGTGGGACCGGAGCGC
GGGCGGGCGCGGCCCCCGGGACCATGGCCGGGTCCGACACCGCGCCCTTCCTCAGCCAGGCGGATGACCCGGAC
GACGGGCCAGTGCCTGGCACCCCGGGGTTCAGGGGTCCACGGGGAAACCCGAAGTCCGAGGAGCCCGAGGTCCCG
GACCAGGAGGGGCTGCAGCGCATCACCGGCCTGTCTCCCGGCCGTTTCGGCTCTCATAGTGGCGGTGCTGTGCTAC
ATCAATCTCCTGAACTACATGGACCGCTTCACCGTGGCTGGCGTCTTCCTCCGACATCGAGCAGTTCCTTCAACATC
GGGGACAGTAGCTCTGGGCTCATCCAGACCGTGTTCATCTCCAGTTACATGGTGTGGCACCTGTGTTTGGGCTAC
CTGGGTGACAGGTACAATCGGAAGTATCTCATGTGCGGGGGCATTGCCTTCTGGTCCCTGGTGACACTGGGGTCA
TCCTTCATCCCCGGAGAGCATTCTGGGCTGCTCCTCCTGACCCGGGGCCTGGTGGGGGTCCGGGAGGCCAGTTAT
TCCACCATCGCGCCCACTCTCATTGCCGACCTCTTGTGGCCGACCAGCGGAGCCGGATGCTCAGCATCTTCTAC
TTTGCCATTCCGGTGGGCAGTGGTCTGGGCTACATTGCAGGCTCCAAAGTGAAGGATATGGCTGGAGACTGGCAC
TGGGCTCTGAGGGTGACACCGGTCTAGGAGTGGTGGCCGTTCTGCTGCTGTTCTTGGTAGTGCAGGAGCCGCCA
AGGGGAGCCGTGGAGCGCCACTCAGATTTGCCACCCCTGAACCCACCTCGTGGTGGGCAGATCTGAGGGCTCTG
GCAAGAAATCCTAGTTTCGTCTGTCTTCCCTGGGCTTCACTGCTGTGGCCTTTGTACAGGGCTCCCTGGCTCTG
TGGGCTCCGGCATTCTGCTGCGTTCCCGCGTGGTCTTGGGGAGACCCACCCCTGCCTTCCCGGAGACTCCTGC
TCTTCCTCTGACAGTCTCATCTTTGGACTCATCACCTGCCTGACCGGAGTCTGGGTGTGGGCCTGGGTGTGGAG
ATCAGCCGCCGGCTCCGCCACTCCAACCCCGGGCTGATCCCCTGGTCTGTGCCACTGGCCTCCTGGGCTCTGCA
CCCTTCCTCTTCTGTCCCTTGCCCTGCGCCCGTGGTAGCATCGTGGCCACTTATATTTTCATCTTCATTGGAGAG
ACCTTCCTGTCCATGAACTGGGCCATCGTGGCCGACATTCTGCTGTACGTGGTGATCCCTACCCGACGCTCCACC
GCCGAGGCCTTCCAGATCGTGCTGTCCCACCTGCTGGGTGATGCTGGGAGCCCCTACCTCATTGGCCTGATCTCT
GACCGCCTGCGCCGGAAGTGGCCCCCTCCTTCTTGTCCGAGTTCGGGCTCTGCAGTTCCTCGCTCATGCTCTGC
GCGTTTGTGGGGCACTGGGCGGCGCAGCCTTCCTGGGCACCGCCATCTTCATTGAGGCCGACCGCCGGCGGGCA
CAGCTGCACGTGCAGGGCCTGCTGCACGAAGCAGGGTCCACAGACGACCGGATTGTGGTGCCCCAGCGGGGCCG
TCCACCCGCGTGCCCGTGGCCAGTGTGCTCATCTGAGAGGCTGCCGCTCACCTACCTGCACATCTGCCACAGCTG
GCCCTGGGCCCCACCCACGAAGGGCCTGGGCCTAACCCCTTGGCCTGGCCAGCTTCCAGAGGGACCCCTGGGCCG
TGTGCCAGCTCCCAGACACTACATGGGTAGCTCAGGGGAGGAGGTGGGGTCCAGGAGGGGGATCCCTCTCCACA
GGGGCAGCCCCAAGGGCTCGGTGCTATTTGTAACGGAATAAAATTTGTGCCAGAAAAAAAAAAAA

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FIGURE 4496

MAGSDTAPFLSQADDPDDGPVPGTPGLPGSTGNPKSEEPVDPQEGLRITGLSPGRSALIVAVLCYINLLNYMD
RFTVAGVLPDIEQFFNIGDSSSGLIQTVFISYMLAPVFGYLGDRYNRKYLMCGGIAFWSLVTLGSSFIPGEHF
WLLLLTRGLVGVGEASYSTIAPTILIADLFVADQSRMLSIFYFAIPVGSGGLGYIAGSKVKDMAGDWHWALRVTPG
LGVVAVLLLFLVVREPPRGAVERHSDLPLNPTSWWADLRALARNPSFVLSSLGFTAVAFVTGSLALWAPAFLLR
SRVVLGETPPCLPGDSCSSSDSLIFGLITCLTGVLGVGLGVEISRRLRHSNPRADPLVCATGLLGSAPFLFLSLA
CARGSIVATYIFIFIGETLLSMNWAIVADILLYVVIPTRRSTAEAFQIVLSHLLGDAGSPYLI GLISDRLRNWP
PSFLSEFRALQFSLMLCAFVGALGGAFLGTAIFIEADRRRAQLHVQGLLHEAGSTDDRIVVPQGRSTRVPVAS
VLI

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FIGURE 4497

GGCGCGGAGGAGGAGGTTCCCGGAAGCCACGCGCAGCTGGAGCAGCGGCGACCGCAGCTGGAGGCCCGGAGCGCC
TGCGGGGCTGGCAGAGGCGAGGGAGGTTGCGGGTAGGAAGGGCGGACTGCGCGCGCCCCCTGCGTCCCGCGCACC
TCGGGGCCGGTCCATGCTCCCGACGGCTGCGGGCTTACGATCTGGGGCCAGGTTGGGGCGGCGGGGTCCAGGGC
GCAGGTGGTGGCGCCGATGCGCCGGGCGGAGGCTGAGGCCGCGCTGCGGGGCTGGGACAGCAGCTGGCATCTCCA
GAGCAGGCCCGGGGCGAGCAAGGGAGGCGCCGCGATGCCAGACGAAAATATCTTCCTGTTTCGTGCCCAACCTCATC
GGTTATGCCCCGATTGTCTTCGCCATCATTTCTTTCTACTTCATGCCCTGCTGCCCCCTCACGGCCTCCTCCTTC
TACCTGCTCAGCGGCTGCTGGACGCTTTCGATGGACACGCTGCTCGCGCTCTTAATCAAGGAACCCGGTTTGGG
GCCATGCTGGACATGCTGACGGACCGCTGCTCCACCATGTGCCTGTTGGTCAACCTGGCCCTGCTGTACCCTGGA
GCCACGCTGTTCTTCCAAATCAGCATGAGTTTGGATGTGGCCAGTCACTGGCTGCACCTCCACAGTTCTGTGGTC
CGAGGCAGTGAGAGTCACAAGATGATCGACTTGTCCGGGAATCCGGTGCTTCGGATCTACTACACCTCGAGGCCT
GCTCTGTTACCTTGTGTGCTGGGAATGAGCTCTTCTACTGCCTCCTCTACCTGTTCCATTTCTCTGAGGGACCT
TTAGTTGGCTCTGTGGGACTGTTCCGGATGGGCCTCTGGGTCACTGCCCCCATCGCCTTGCTGAAGTCGCTCATC
AGCGTCATCCACCTGATCACGGCCGCGCGCAACATGGCTGCCCTGGACGCAGCAGACCGCGCCAAGAAGAAGTGA
CGCTGGAGCCCCGGGTCTGGCTGCCCCACCTGCCCTGGGAGTCTTGCTGTGCCACACAGCTCCCCACCCCTGCT
AGGAGGTCCCAGTCTCACGCCTTCCTCATGTGTTGTTCTACCTGCTGGGATGGGGTCAGCCTCTCTTTGGTGAC
GTCACGTTCTCTGGGATCCTGAGGACCCGGGCCTCAAATCAGGGAGGATACGCGGGAGGCCCCCTCCATCCAGGC
GGTGCTCCTGGGGTGCCGGGACCGGGCAGTGTACACCCTGCCTGCTCAGTCCTGGGGTCCGAGATGCTAGGGAC
GCTTGAGTGAGGGAGGTGGTGTGAGGGCCAGGTTTCTGAAAGGCGGGAGTCAGACCTCCGCCCCAGCCAGAGC
AAGCTTGGGGCACCATGCCCAGGAGGGAAGAAGCCATCCACAGCCTTCCTGTACCGGCTCCTCTGTCTGCTGCCT
ACCCTGGTCCTGGCGGGACTTCACTATTTGACTTGGTTTCTTTTCAGATATTCTTGGCTCAGGGCCTGGGTTGAG
GGAGCTTAGGGAAGGACGTCCGTCTGGGTGCTTTTCTCCAGTTTGCTGGCTGGCTTCTCCGTCTACCCACAGTG
ACCTCACAGAGAGGCCCTCCTGCCACCCATGCTCATGTGGTGTCCCCACCGCCCACTTGTTTGATGTCACTGACT
GTCTACATGATTTTATATTCTTGATATTTTCTACCCTCACTAGAATGTAACTCCATGAAGGCACAGACTTTTCT
TGTTCTCTTCTCTATCCCTAGAGTAAGACCAACTTGAACCTGGCATATAGTAGCTGCTTAATAAACTACTCGTCTG
TC

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FIGURE 4498

TTCCCCATCTGAGGCGTTTGTGTCAGCTACCTGCACTTCTAGATGCTCCCCAGGTTTCATCTGTGTCGTCTCCCC
CACCTACCAGTCATCTTCTTGTGAGCCCTGGGCTTAGGAGTCACC**ATGG**CAACTGAAGAGTTTCATCATCCGCATC
CCCCATAACCACTATATCCATGTGCTGGACCAGAAACAGCAACGTGTCCCGTGTGGAGGTTCGGGCCAAAGACCTAC
ATCCGGCAGGACAATGAGAGGGTACTGTTTGTCCCATGCGCATGGTGACCGTCCCCCACGTCACTACTGCACA
GTGGCCAACCTGTGTCTCGGGATGCCAGGGCTTGGTGCTGTTTGATGTACAGGGCAAGTTCGGCTTCGCCAC
GCTGACCTCGAGATCCGGCTGGCCCAGGACCCCTTCCCCCTGTACCCAGGGGAGGTGCTGGAAAAGGACATCACA
CCCCTGAGGTGGTTCTGCCCCAACACTGCCCTCCATCTAAAGGCGCTGCTTGATTTTGAGGATAAAGATGGAGAC
AAGGTGGTGGCAGGAGATGAGTGGCTTTTCGAGGGACCTGGCACGTACATCCCCCGGAAGGAAGTGGAGGTCTGTG
GAGATCATTCAGGCCACCATCATCAGGCAGAACAGGCTCTGCGGCTCAGGGCCCCGAAGGAGTGTGGGACCGG
GACGGCAAGGAGAGGGTGACAGGGGAAGAATGGCTGGTCACCACAGTAGGGGCGTACCTCCCAGCGGTGTTTGAG
GAGTTCTGGATTGTTGGTGACGCCGTCTCCTTACGGAAAAGACAGCCCTGCACCTCCGGGCTCGGCGGAACCTC
CGGGACTTCAGGGGAGTGTCCCGCCGCACTGGGGAGGAGTGGCTGGTAACAGTGCAGGACACAGAGGCCACGTG
CCAGATGTCCACGAGGAGGTGCTGGGGGTTGTGCCCATCACCACTGGGCCCCCACAACACTACTGCGTGATTCTC
GACCTGTGCGACCGGATGGCAAGAATCAGCTGGGGCAGAAAGCGCGTGGTCAAGGGAGAGAAGTCTTTTTCTCTC
CAGCCAGGAGAGCAGCTGGAACAAGGCATCCAGGATGTGTATGTGCTGTGCGAGCAGCAGGGGCTGCTGCTGAGG
GCCCTGCAGCCCCCTGGAGGAGGGGGAGGATGAGGAGAAGGTCTCACACAGGCTGGGGACCACTGGCTCATCCGC
GGACCCCTGGAGTATGTGCCATCTGCCAAAGTGGAGGTGGTGGAGGAGCGCCAGGCCATCCCTCTAGACGAGAAC
GAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAGGTGCGCGCTGTGATTGGAAGCACCTACATGCTGACCCAG
GACGAAGTCTGTGGGAGAAAAGAGCTGCCTCCCGGGTGGAGGAGCTGCTGAACAAGGGGAGGACCCCTCTGGCA
GACAGGGGTGAGAAGGACACAGCTAAGAGCCTCCAGCCCTTGCGCGCCCGGAACAAGGCCGCTGTGGTCACTAC
CGCGTGCCTCCACAACGCTGCGGTGCAGGTGTACGACTACCGAGAGAAGCGAGCCCGCTGCTTTCGGGCTGAG
CTGGTGTGCTGGGTCTGAGGAGCAGTTACAGTGTGTGCTCCTCTCAGCTGGGCGGCCCAAGCGTCCCCATGCC
CGCGTGCCTCTGCTGCTGGGGCTGACTTCTTACAGACGTATCACCATCGAAACGGCGGATCATGCC
AGGCTGCAACTGCAGCTGGCTACAACCTGGCACTTTGAGGTGAATGACCGGAAGGACCCCAAGAGACGGCCAAG
CTCTTTTCAGTGCCAGACTTTGTAGGTGATGCCTGCAAAGCCATCGCATCCCGGGTGCGGGGGGCCGTGGCCTCT
GTCACTTTCGATGACTTCCATAAAGAACTCAGCCCGCATATTGCGACTGCTGTCTTTGGCTTTGAGACCTCGGAA
GCGAAGGGCCCCGATGGCATGGCCCTGCCAGGCCCGGGACCAGGCTGTCTTCCCCCAAACGGGCTGGTGGTC
AGCAGTGTGGACGTGCAGTCAGTGGAGCCTGTGGATCAGAGGACCCGGGACGCCCTGCAACGCAGCGTCCAGCTG
GCCATCGAGATCACCACTCCAGGAAGCGCGGCCAAGCATGAGGCTCAGAGACTGGAGCAGGAAGCCCGC
GGCCGGCTTGAGCGGCAGAAAGATCCTGGACCACTCAGAAAGCCGAGAAAGCTCGCAAGGAACCTTTGGAGCTGGAG
GCTCTGAGCATGGCCGTGGAGAGCACCGGGACTGCCAAGGCGGAGGCCGAGTCCCGTGCAGGAGCAGCCCGGATT
GAGGGAGAAGGGTCCGTGCTGCAGGCCAAGCTAAAAGCACAGGCCTTGGCCATTGAAACGGAGGCTGAGCTCCAG
AGGGTCCAGAAGGTCCGAGAGCTGGAACCTGGTCTATGCCCGGGCCAGCTGGAGCTGGAGGTGAGCAAGGCTCAG
CAGCTGGCTGAGGTGGAGGTGAAGAAGTTCAAGCAGATGACAGAGGCCATAGGCCCCAGCACCATCAGGGACCTT
GCTGTGGCTGGGCTGAGATGCAGGTAAAAGTCTCCAGTCCCTGGGCTGAAATCAACCCTCATCACCGATGGC
TCCACTCCCATCAACCTCTTCAACACAGCCTTTGGGCTGCTGGGGATGGGGCCGAGGGTCAGCCCTGGGCAGA
AGGGTGGCCAGTGGGCCAGCCCTGGGGAGGGGATATCCCCCAGTCTGCTCAGGCCCTCAAGCTCCTGGAGAC
AACCAGTGGTGCCTGTACTGCGCT**TAA**CTCCTGATTAATAACAATGGAAGTTTCTGGGCAAAAAAAAAAAAAAA
GTTTCCA

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FIGURE 4499

MATEEFIIRIPPYHYIHVLDQNSNVS RVEVGPKTYIRQDNERVLFAPMRMVTVP
PRHYCTVANPVS RDAQGLVLF
DVTGQVRLRHADLEIRLAQDPFPLYPGEVLEKDITPLQVVL PNTALHLKALLDFEDKDGKVVAGDEWLFEGPGT
YIPRKEVEVVEIIQATII RQNQALRLRARKECWDRD GKERTGEEWLVTTVGAYLPAVFEEVLDLVDAILTEKT
ALHLRARRNFRD FRGVSRR TGEEWLVTVQDTEAHVPDVHEEVLGVVPITTLGPHNYCVILDPVGP DGKNQLGQKR
VVKGEKSFFLQPGEQLEQGIQDVYVLSEQQGLLLRALQPLEEGEDEEKVSHQAGDHWLIRGPLEYVPSAKVEVVE
ERQAIPLDENEGIYVQDVKTGKVRAVIGSTYMLTQDEVLWEKELPPGVEELLNKGQDPLADRGEKDTAKSLQPLA
PRNKTRVVS YRVPHNAAVQVYDYREKRARVVFGEPLVSLGPEEQFTVLSLSAGRPKRPHARRALCLLLGPDFFTD
VITTIETADHARLQLQLAYNWHFEVNDRKDPQETAKLFSVPDFVGDACKAIASRVRGAVASVTFDDFHKNSARIIR
TAVFGFETSEAKGPDGMALPRPRDQAVFPQNGLVVSSVDVQSVEPVDQRTDALQRSVQLAIEIT TNSQEAAKH
EAQRLEQEARGRLERQKILDQSEAEKARKELLELEALSMAVESTGTAKAEAESRAEAARIEGEGSVLQAKLKAQA
LAIETEAE LQRVQKVRELELVYARAQLELEVSKAQQLAEEVEVKKFKQMTEAIGPSTIRD LAVAGPEMQVKLLQSL
GLKSTLITDGSTPINLFNTAFGLLGMGPEGQPLGRRVASGSPSPGEGISPQSAQAPQAPGDNHVPVLR

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FIGURE 4500

AAAGGTTCCCCATCTGAGGCGTTTGTTCAGCTACCTGCACTTCTAGATTTCATCTTCTTGTGAGCCCTGGGCTTA
GGAGTCACCAATGGCAACTGAAGAGTTTCATCATCCGCATCCCCCATACCACTATATCCATGTGCTGGACCAGAAC
AGCAACGTGTCCCGTGTGGAGGTCGGGGCCAAAGACCTACATCCGGCAGGACAATGAGAGGGTACTGTTTGCCCCC
ATGCGCATGGTGACCGTCCCCCACGTCACTACTGCACAGTGGCCAACCCTGTGTCTCGGGATGCCAGGGCTTG
GTGCTGTTTGATGTACAGGGCAAGTTCGGCTTCGCCACGCTGACCTCGAGATCCGGCTGGCCAGGACCCCTTC
CCCCTGTACCCAGGGGAGGTGCTGGAAAAGGACATCACACCCCTGCAGGTGGTTCTGCCAACACTGCCCTCCAT
CTAAAGGCGCTGCTTGATTTTGAGGATAAAGATGGAGACAAGGTGGTGGCAGGAGATGAGTGGCTTTTCGAGGGA
CCTGGCACGTACATCCCCCGGAAGGAAGTGGAGGTTCGTGGAGATCATTACAGGCCACCATCATCAGGCAGAACCAG
GCTCTGCGGCTCAGGGCCCCGAAGGAGTGCTGGGACCGGGACGGCAAGGAGAGGGTGACAGGGGAAGAATGGCTG
GTCACCACAGTAGGGGCGTACCTCCAGCGGTGTTTGAGGAGGTTCGTGGATTTGGTGGACGCCGTCATCCTTACG
GAAAAGACAGCCCTGCACCTCCGGGCTCGGCGGAACCTTCGGGACTTCAGGGGAGTGTCCCGCCGCACTGGGGAG
GAGTGGCTGGTAACAGTGCAGGACACAGAGGCCCCAGTGCCAGATGTCCACGAGGAGGTGCTGGGGGTGTGCCCC
ATCACACCCTGGGCCCCCACAACACTACTGCGTGATTCTCGACCCTGTTCGACCGGATGGCAAGAATCAGCTGGGG
CAGAAGCGCGTGGTCAAGGGAGAGAAGTCTTTTTCTCCAGCCAGGAGAGCAGCTGGAACAAGGCATCCAGGAT
GTGTATGTGCTGTTCGGAGCAGCAGGGGCTGCTGCTGAGGGCCCTGCAGCCCCCTGGAGGAGGGGGAGGATGAGGAG
AAGGTCTCACACCAGGCTGGGGACCACTGGCTCATCCGCGGACCCCTGGAGTATGTGCCATCTGCCAAAGTGGAG
GTGGTGGAGGAGCGCCAGGCCATCCCTCTAGACGAGAAGAGGGGCATCTATGTGCAGGATGTCAAGACCGGAAAG
GTGCGCGCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCCTGTGGGAGAAAGAGCTGCCCTCCCGGG
GTGGAGGAGCTGCTGAACAAGGGGCAGGACCCCTCTGGCAGACAGGGGTGAGAAGGACAGCTAAGAGCTCCAG
CCCTTGCGCGCCCCGGAACAAGACCCGTGTGCTGCTGAGCTACCGCGTGCCCCACAACGCTGCGGTGCAGGTGTACGAC
TACCGAGAGAAGCGAGCCCCGCGTGGTCTTCGGGCGCTGAGCTGGTGTGCTGCTGGGTCTGAGGAGCAGTTACAGTG
TTGTCCCTCTCAGCTGGGCGGCCCCAAGCGTCCCCATGCCCGCGTGCGCTCTGCCTGCTGCTGGGGCCTGACTTC
TTCACAGACGTTCATCACCATCGAAAACGGCGGATCATGCCAGGCTGCAACTGCAGCTGGCCTACAACCTGGCACTTT
GAGGTGAATGACCGGAAGGACCCCCAAGAGACGGCCAAGCTCTTTTTCAGTGCCAGACTTTGTAGGTGATGCCTGC
AAAGCCATCGCATCCCGGGTGCAGGGGGGCGTGGCCTCTGTCACTTTTCGATGACTTCCATAAGAAGCTCAGCCCGC
ATCATTCGCACTGCTGTCTTTGGCTTTTGAGACCTCGGAAGCGAAGGGCCCCGATGGCATGGCCCTGCCAGGCCC
CGGGACCAAGGCTGTCTTCCCCCAAACGGGCTGGTGGTTCAGCAGTGTGGACGTGCAGTTCAGTGGAGCCTGTGGAT
CAGAGGACCCGGGACGCCCTGCAACGCAGCGTCCAGCTGGCCATCGAGATCACCACCAACTCCCAGGAAGCGGCG
GCCAAGCATGAGGCTCAGAGACTGGAGCAGGAAGCCCGCGGCGGCTTGAGCGGCAGAAGATCCTGGACCAGTCA
GAAGCCGAGAAAGCTCGCAAGGAACCTTTGGAGCTGGAGGCTCTGAGCATGGCCGTGGAGAGCACCAGGACTGCC
AAGGCGGAGGCGGAGTCCCGTGCAGGAGCAGCCCGGATTGAGGGAGAAGGGTCCGTGCTGCAGGCCAAGCTAAAA
GCACAGGCCTTGGCCATTGAAACGGAGGCTGAGCTCCAGAGGGTCCAGAAGGTCCGAGAGCTGGAAGTTCAGGCTAT
GCCCGGGCCAGCTGGAGCTGGAGGTGAGCAAGGCTCAGCAGCTGGCTGAGGTGGAGGTGAAGAAGTTCAAGCAG
ATGACAGAGGCCATAGGCCCCAGCACCATCAGGGACCTTGCTGTGGCTGGGCCTGAGATGCAGGTAAACTGCTC
CAGTCCCTGGGCCTGAAATCAACCTCATCACCGATGGCTCCACTCCCATCAACCTCTTCAACACAGCCTTTGGG
CTGCTGGGGATGGGGCCGAGGGTCAGCCCTGGGCAGAAAGGTGGCCAGTGGGCCAGCCCTGGGGAGGGGATA
TCCCCCAGTCTGCTCAGGCCCCCTCAAGCTCCTGGAGACAACCACGTGGTGCCTGTACTGCGCTAACTCCTGATT
AATACAATGGAAGTTTCTGGGCAAAAAAAAAAAAAAAAAAAGTTTCCA

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FIGURE 4501

MATEEFIIRIPPYHYIHVLDQNSNVSERVEVGPKTYIRQDNERNVLFAPMRMVTVPPRHYCTVANPVSRDAQGLVLF
DVTGQVRLRHADLEIRLAQDPFPLYPGEVLEKDITPLQVVLPNTALHLKALLDFEDKDGDKVVAGDEWLFEGPGT
YIPRKEVEVVEIIQATIIRQNQALRLRARKECWDRDGKERTGEEWLVTTVGAYLPAVFEEVLDLVDVILTEKT
ALHLRARRNFRDFRGVSRRTGEEWLVTVDTEAHVPDVHEEVLGVVPIITLGPBNYCVILDPVGPDKGNQLGQKR
VVKGEKSFFLQPGEQLEQGIQDVYVLSEQQGLLLRALQPLEEGEDEEKVSHQAGDHWLIRGPLEYVPSAKVEVVE
ERQAIPLDENEGIYVQDVKTGKVRVIGSTYMLTQDEVLWEKELPPGVEELLNKGQDPLADRGEKDTAKSLQPLA
PRNKTRVVSYRVPHNAAVQVYDYREKRARVVFGEPLVSLGPPEEQFTVLSLSAGRPKRPHARRALCLLGPDDFTD
VITIETADHARLQLQLAYNWHFEVNDKDPQETAKLFSVPDFVGDACKAIASRVRGAVASVTFDDFHKNSARIIR
TAVFGFETSEAKGPDGMALPRPRDQAVFPQNGLVSSVDVQSVEPVDQRTDALQRSVQLAIEITTNSEAAKH
EAQRLEQEARGRLERQKILDQSEAEKARKELELEALSMAVESTGTAKAEAESRAEAARIEGEGSVLQAKLKAQA
LAITEAELOQVQKVRELELVYARAQLELEVSKAQQLAEEVEVKKFKQMTAIGPSTIRDLAVAGPEMQVKLLQSL
GLKSTLITDGSTPINLFNTAFGLLGMGPEGQPLGRRVASGSPGEGISPQSAQAPQAPGDNHVVPLR

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FIGURE 4503

MSLARGHGDTAASTAAPLSEEGEVTSGLQALAVEDTGGPSASAGKAEDEGEGGREETEREGSGGEEAQGEVPSAG
GEEPAEEDSEDWCVPCSDDEVELPADGQPWMPPPSEIQRLYELLAHGTLELQAEILPRRPPTPEAQSEEEERSDE
EPEAKEEEEEKPHMPTEFDDEPVTPKDSLIDRRRTPGSSARSQKREARLDKVLSDMKRHKKLEEQILRTGRDL
FSLDSEDPSASPPLRSSGSSLFPRQRKY

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FIGURE 4504

TGCCGCCGCCTCTACGGTGGACACAGCGGCCCTGAAGCAGCCTCCGGCGCCCCCTCCGCCACCCCCGCCAGTGTC
GGCGCCCCGGGCCGAGGCCGCGCCCCCGCCTCCGCCGCCACTATCGCCGCGTCGGCGGCCACCGCCGTCGTAGC
CCCAACCTCGACGGTCGCCGTGGCCCCGGTCGCGTCTGCCTTGGAGAAGAAGACAAAGAGCAAGGGGCCCTACAT
CTGCGCTCTGTGCGCCAAGGAGTTCAAGAACGGCTACAATCTCCGGAGGCACGAAGCCATCCACACGGGAGCCAA
GGCCGGCCGGGTCCCCTCGGGTGCTATGAAGATGCCGACCATGGTGCCCCCTGAGCCTCCTGAGCGTGCCCCAGCT
GAGCGGAGCCGGCGGGGGAGGGGGAGAGGCGGGTGCCGGCGGGCGGCGCTGCCGCAGTGCCCGCCGGTGCGGTGGT
GACCACGACCGCCTCGGGGAAGCGCATCCGGAAGAACCATGCCTGCGAGATGTGTGGCAAGGCCTTCCGCGACGT
CTACCACCTGAACCGACACAAGCTGTGCGACTCGGACGAGAAGCCCTACCAGTGCCCGGTGTGCCAGCAGCGCTT
CAAGCGCAAGGACCGCATGAGCTACCACGTGCGCTCACATGACGGCGCTGTGCACAAGCCCTACAACCTGCTCCCA
CTGTGGCAAGAGCTTCTCCCGCCGGATCACCTCAACAGTCACGTCAGACAAGTGCACTCAACAGAACGGCCCTT
CAAATGTGAGAAATGTGAGGCAGCTTTCGCCACGAAGGATCGGCTGCGGGCGCACACAGTACGACACGAGGAGAA
AGTGCCATGTACGTGTGTGGCAAGATGCTGAGCTCGGCTTATATTTCGGACCACATGAAGGTGCACAGCCAGGG
TCCTCACCATGTCTGTGAGCTCTGCAACAAAGGTACTGGTGAGGTTTGTCCAATGGCGGCGGCAGCGGCAGCGGC
GGCAGCGGCAGCAGCGGCAGCAGTAGCAGCCCCCTCCCACAGCTGTGGGCTCCCTCTCGGGGGCGGAGGGGGTGCC
TGTGAGCTCTCAGCCACTTCCCTCCCAACCCTGGTGAGCTCCAAGTTGGTTGCGGGGGAGAGGGGAGAATGGAGT
AGAGTCCCTTGGTACAAGCTCCTCTCCCCCTCTTTTCCCACTCCTATTTCCTACCAACCAAGGAGCCTC
CAGAAGGAAAAGGAGGAAGAAATGTTTTCTTAGGGGAATTC

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FIGURE 4505

TCGCGCTGGCCCCGGTTCGCGTCTGCCCTTGGAGAAGAAGACAAAGAGCAAGGGGCCCTACATCTGCGCTCTGTGCG
CCAAGGAGTTCAAGAACGGCTACAATCTCCGGAGGCACGAAGCCATCCACACGGGAGCCAAGGCCGGCCGGGTCC
CTTCGGGTGCTATGAAGATGCCGACCATTGGTGGCCCTGAGCCTCCTGAGCGTGCCCCAGCTGAGCGGAGCCGGCG
GGGGAGGGGGAGAGGCGGGTGCCGGCGGGCGCTGCCGCAGTGGCCGCCGGTGGCGTGGTGACCACGACCGCCT
CGGGGAAGCGCATCCGGAAGAACCATGCCTGCGAGATGTGTGGCAAGGCCTTCCGCGACGTCTACCACCTGAACC
GACACAAGCTGTGCACTCGGACGAGAAGCCCTACCAGTGCCCGGTGTGCCAGCAGCGCTTCAAGCGCAAGGACC
GCATGAGCTACCACGTGCGCTCACATGACGGCGCTGTGCACAAGCCCTACAACCTGCTCCCACTGTGGCAAGAGCT
TCTCCCGGCCGGATCACCTCAACAGTACGTCAGACAAGTGCACCTCAACAGAACGGCCCTTCAAATGTGAGAAAT
GTGAGGCAGCTTTCGCCACGAAGGATCGGCTGCGGGCGCACACGTACGACACGAGGAGAAAGTGCCATGTCACG
TGTGTGGCAAGATGCTGAGCTCGGCTTATATTTTCGGACCACATGAAGGTGCACAGCCAGGGTCTCACCATGTCT
GTGAGCTCTGCAACAAAGGCTTACCACGGCAGCATACCTGCGCATCCACGCGGTGAAGGACCACGGGCTCCAG
CCCCGCGGGCTGACCGCATCCTGTGCAAGCTGTGCAGCGTGCACCTGCAAGACCCCTGCCCAGCTGGCCGGCCACA
TGCAGACCCATCTGGGGGGGGCGCCCCCTGTCCCGGGAGACGCCCCCAGCCACAGCCCACCTGCTGAGGGGG
ACCCCCGCACCCACCAGGTACTGGTGAGGTTTGTCCAATGGCGGGCGGCAGCGGCAGCGGGCGGCAGCGGCAGCAGC
GGCAGCAGTAGCAGCCCCCTCCACAGCTGTGGGCTCCCTCTCGGGGGCGGAGGGGGGTGCCTGTGAGCTCTCAGCC
ACTTCCCTCCCAACCCCTGGTGAGCTCCAAGTTGGTTGCGGGGGAGAGGGGAGAATGGAGTAGAGTCCCTTGGTAC
AAGTCTCTCTCCCCCTCTTTTCCCACCAACTCCTATTTCCCTACCAACCAAGGAGCCTCCAGAAGGAAAGGAGG
AAGAAATGTTTTCTTAGGGGAATTGCTAGGTTTTAACGATTGTTTTCTCTCTCTCTGTCTCTCTTCTGTCTAGACCTGAC
CCCACACAAACCTGTCCCCCTCGGTTGTGTTGAAGTCCCCTGAGCAGTGGGCAGGGGTGGCAGAGGACACGAGCAG
CCACTGCCCGTACCCCCCTCTCCTCTCTGTGAAGCCCATGCCCTGTCTTCCCAGGGACTTGTGAGCCTCTTCCCTCG
ACGGTCTCTTCTCTCTCTTCCAGTCTCTCCCCCTGCTGTCTGTCAGCCCCCTCCCAGGGGAGTTGGTGCTTCTTT
TCTTTTTTTTTTTTTTCCAGGGGGAGGGAGGAGGAAGGAGGGGGATCAGAGCTGTCCCAAAGAGGGGAAAGCG
GTGAGGTTTGAAGAGGGGCAGAAGCAGGGCCGGCAAAGGTTGTACCTTATAGAGGTGGTATGGGGGGTTGGGGTC
AGCCCCTGAACATCGTCTACTTGAGAACTGTCTAGGGGAAAAAGTCAAGGGGAGCAGGAGGAAGAGCCAGGAG
GCCAGAGGCAGAGCAAGAGATGGAGTCTTAGGGGCCAGGGTGAGCCAGGGGTCCAGGGCCTAGAGGTGCTTCTTG
GGCGGGGGGAATGACAGCCAGTGTCCCCCTCTTCCACCCACAGCTCCAGCCCTGGTCTTGTCTTTTCATCCC
TCTTCCCCACGACAGAAGAAGTTGTGGCCCTGGCCATGTCATCGTGTTCCTGTGTCCCCCTGCATGTACCCACCC
TCCACCCCTTCTTTTTGCGCGGACCCCATTAACAATAAATTTTTAAATA

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FIGURE 4506

MKMPTMVPLSLLSVPQLSGAGGGGGEAGAGGGAAVAAGGVVTTTASGKRIRKNHACEMCGKAFRDVYHLNRHKL
SHSDEKPYQCPVCQQRFKRKDRMSYHVRSHDGAVHKPYNC SHCGKSFSRPDHLNSHVRQVHSTERPFKCEKCEAA
FATKDRLRAHTVRHEEKVPCHVCGKMLSSAYISDHMKVHSQGPHHVCELCNKGFTTAAYLRIHAVKDHGLQAPRA
DRILCKLCSVHCKTPAQLAGHMQTHLGGAAPLSRETTPSHSPPAEGDPRT HQVLVRFVQWRRQRQRQRQRQQ

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FIGURE 4507

GGGCGGGCCCAAGGAGGGAGTGGAAATGGCCGCGGGCGGCTCGACGCAGCAGAGGGCGACGCGAGATGGCGGCAGCT
TCAGCGGCGGCGATCTCAGGAGCTGGTTCGCTGTTCGGCTAAGCAAGATTGGAGCTACTCGTTCGTCCACCTCCAGCT
CGCGTAAGGGTGGCTGTGCGACTGCGGCCATTTGTGGATGGAACAGCGGGAGCAAGTGATCCCCCTGTGTGCGG
GGCATGGACAGCTGCTCTCTAGAGATTGCTAACTGGAGGAACCACCAGGAGACTCTCAAATACCAGTTTGATGCC
TTCTATGGGGAGAGGAGTACTCAGCAGGACATCTATGCAGGTTTCAGTGCAGCCCATCCTAAGGCACCTTGCTGGAA
GGGCAGAATGCCAGTGTGCTTGCCTATGGACCCACAGGAGCTGGGAAGACGCACACAATGCTGGGCAGCCCAGAG
CAACCTGGGGTGATCCCGCGGGCTCTCATGGACCTCCTGCAGCTCACAAAGGGAGGAGGGTGCCGAGGGCCGCGCA
TGGGCCCTTTCTGTACCATGTCTTACCTAGAGATCTACCAGGAGAAGGTATTAGACCTCCTGGACCCCTGCTTCG
GGAGACCTGGTAATCCGAGAAGACTGCCGGGGGAATATCCTGATTCGGGTCTCTCCAGAAGCCCATCAGTAGC
TTTGCTGATTTTGAGCGGCACTTCTTGCCAGCCAGTCGAAATCGGACTGTAGGAGCCACCCGGCTCAACCAGCGC
TCCTCCCGCAGTCATGCTGTGCTCCTGGTCAAGGTGGACCAGCGGGAACGTTTGGCCCCATTTCGCCAGCGAGAG
GGAAACTCTACCTGATTGACTTGGCTGGGTGAGAGACAACCGGCGCACAGGCAACAAGGGCCTTCGGCTAAAA
GAGAGTGGAGCCATCAACACCTCCCTGTTTGTCTGGGCAAGTGGTAGATGCGCTGAATCAGGGCCTCCCTCGT
GTACCTTATCGGGACAGCAAGCTCACTCGCCTATTGCAGGACTCTCTGGGTGGCTCAGCCCACAGTATCCTTATT
GCCAACATTGCCCCCTGAGAGACGCTTCTACCTAGACACAGTCTCCGCACTCAACTTTGCTGCCAGGTCCAAGGAG
GTGATCAATCGGCCTTTTACCAATGAGAGCCTGCAGCCTCATGCCTTGGGACCTGTTAAGCTGTCTCAGAAAGAA
TTGCTTGGTCCACCAGAGGCAAAGAGAGCCCGAGGCCCTGAGGAAGAGGAGATTGGGAGCCCTGAGCCCATGGCA
GCTCCAGCCTCTGCCTCCAGAAACTCAGCCCCCTACAGAAGCTAAGCAGCATGGACCCGGCCATGCTGGAGCGC
CTCCTCAGCTTGGACCGTCTGCTTGCCTCCAGGGGAGCCAGGGGGCCCCCTCTGTTGAGTACCCCAAAGCGAGAG
CGGATGGTGCTAATGAAGACAGTAGAAGAGAAGGACCTAGAGATTGAGAGGCTTAAGACGAAGCAAAAAGAACTG
GAGGCCAAGATGTTGGCCCAGAAGGCTGAGGAAAAGGAGAACCATTGTCCACAATGCTCCGGCCCCCTTTCACAT
CGCACAGTCACAGGGGCAAAGCCCCTGAAAAAGGCTGTGGTGATGCCCTACAGCTAATTCAGGAGCAGGCAGCA
TCCCCAAATGCCGAGATCCACATCCTGAAGAATAAAGGCCGGAAGAGAAAGCTGGAGTCCCTGGATGCCCTAGAG
CCTGAGGAGAAGGCTGAGGACTGCTGGGAGCTACAGATCAGCCCGGAGCTACTGGCTCATGGGCGCCAAAAAATA
CTGGATCTGCTGAACGAAGGCTCAGCCCGAGATCTCCGCAGTCTTCAGCGCATTGGCCCGAAGAAGGCCAGCTA
ATCGTGGGCTGGCGGGAGCTCCACGGCCCCCTTACGCCAGGTGGAGGACCTGGAACGCGTGAGGGGCATAACGGGG
AAACAGATGGAGTCCTTCTGAAGGCAAACATCCTGGGTCTCGCCCGCGCCAGCGCTGTGGCGCCTCCTGACCG
TCGTCTCCTCACTCCGCCTTTTCAAATTTTGTATAACCCCGTGTGTGTAAATACAGTTTTTGTCTCCGGTG

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FIGURE 4508

MAAGGSTQQRREMAAASAAAISGAQRCLSKIGATRRPPPARVRVAVRLRPFVDGTAGASDPPCVRGMDSCSLE
IANWRNHQETLKYQFDAFYGERSTQDDIYAGSVQPILRHLLLEGQNASVLAYGPTGAGKTHTMLGSPEQPGVIPRA
LMDLLQLTREEGAEGRPWALSVTMSYLEIYQEKVLDLLDPASGDLVIREDCRGNILIPGLSQKPISSFADFERHF
LPASRNRTVGATRLNQRRSSRSHAVLLVKVDQRERLAPFRQREGKLYLIDLAGESEDNRRTGNKGLRLKESGAINTS
LFVLGKVVDALNQGLPRVPYRDSKLTRLLQDSLGGSAHSILIANIAPERRFYLDTVSALNFAARSKEVINRPFNT
ESLQPHALGFPVKLSQKELLGPPPEAKRARGPEEEEEIGSPEPMAAPASASQKLSPLQKLSSMDPAMLERLLSLDRLL
ASQGSQGAFLLS TPKRERMVLMKTVEEKDLEIERLKTQKKELEAKMLAQKAEKENHCPTMLRPLSHRTVTGAKP
LKKAVVMPLQLIQEQAAASPNAEIHILKNKGRKRKLESLEDALEPEEKAEDCWELQISPELLAHGRQKILDLLNEGS
ARDLRSLQRIGPKKAQLIVGWRELHGPFSSQVEDLERVEGITGQMESFLKANILGLAAGQRCGAS

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FIGURE 4509

GTCCTGAGCAGCCAAACACACCAGCCCAGACAGCTGCAAGTCACC**ATG**GACGCTGAAGGCCTGGCGCTGCTGCTGC
CGCCCGTCACCCCTGGCAGCCCTGGTGGACAGCTGGCTCCGAGAGGACTGCCCAGGGCTCAACTACGCAGCCTTGG
TCAGCGGGGCAGGCCCCCTCGCAGGCGGGCGCTGTGGGCCAAATCCCCTGGGGTACTGGCAGGGCAGCCTTTCTTCG
ATGCCATATTTACCCAACTCAACTGCCAAGTCTCCTGGTTCTCTCCCGAGGGATCGAAGCTGGTGCCGGTGGCCA
GAGTGGCCGAGGTCCGGGGCCCTGCCCCACTGCCTGCTGCTGGGGGAACGGGTGGCCCTCAACACGCTGGCCCGCT
GCAGTGGCATTGCCAGTGCTGCCGCCGCTGCAGTGGAGGCCGCCAGGGGGGCCGGCTGGACTGGGCACGTGGCAG
GCACGAGGAAGACCACGCCAGGCTTCCGGCTGGTGGAGAAGTATGGGCTCCTGGTGGGCGGGGCCGCTCGCACC
GCTACGACCTGGGAGGGCTGGTGTGGTGAAGGATAACCATGTGGTGGCCGCCGGTGGCGTGGAGAAGGCGGTGC
GGGCGGCCAGACAGGCGGCTGACTTCACTCTGAAGGTGGAAGTGAATGCAGCAGCCTGCAGGAGGCCGTGCAGG
CAGCTGAGGCTGGTGCCGACCTTGTCTGCTGGACAACCTCAAGCCAGAGGAGCTGCACCCACGGCCACCGTGC
TGAAGGCCCAGTTCCCGAGTGTGGCTGTGGAAGCCAGTGGGGGCATCACCTGGACAACCTCCCCCAGTTCTGCG
GGCCGCACATAGACGTATCTCCATGGGGATGCTGACCCAGGCGGGCCCCAGCCCTTGATTTCTCCCTCAAGCTGT
TTGCCAAAGAGGTGGCTCCAGTGCCAAAAATCCACT**TAG**TCCTAAACCGGAAGAGGATGACACCGGCCATGGGTTA
ACGTGGCTCCTCAGGACCTCTGGGTACACATCTTTAGGGTCAGTGGCCAATGGGGCACATTTGGCACTAGCTT
GAGCCCAACTCTGGCTCTGCCACCTGCTGCTCCTGTGACCTGTCAGGGCTGACTTCACCTCTGCTCATCTCAGTT
TCCTAATCTGTAAATGGGTCTAATAAAGGATCAACC

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FIGURE 4510

MDAEG LALLLPVTLAALVDSWLREDCPGLNYAALVSGAGPSQAALWAKSPGVLAGQPFFDAIFTQLNCQVSWFL
PEGSKLVPVARVAEVRGPAHCLLLGERVALNTLARCSGIAAAAAVEAARGAGWTGHVAGTRKTTPGFRLVEKY
GLLVGGAASHRYDLGGLVMVKDNHVVAAGGVEKAVRAARQAADFTLKVEVECSSLQEAVQAAEAGADLVLLDNFK
PEELHPTATVLKAQFPSVAVEASGGITLDNLPQFCGPHIDVISMGMLTQAAPALDFSLKLFAKEVAPVPKIH

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FIGURE 4511

GCCTCGGGAGGTGGTGGAGTGACCTGGCCCCAGTGCTGCGTCCTTATCAGCCGAGCCGGTCCCAGCTCTTGCTCC
TGCTGTTTTGCCTGGAAATGGCCACGCTTCTCCTTCTCCTTGGGGTGCTGGTGGTAAGCCCAGACGCTCTGGGGA
GCACAACAGCAGTGCAGACACCCACCTCCGGAGAGCCTTTGGTCTCTACTAGCGAGCCCTGAGCTCAAAGATGT
ACACCACTTCAATAACAAGTGACCCTAAGGCCGACAGCACTGGGGACCAGACCTCAGCCCTACCTCCCTCAACTT
CCATCAATGAGGGATCCCTCTTTGGACTTCCATTGGTGCCAGCACTGGTTCCCTTTACCTGAGCCAACAACCT
ACCAGGAAGTTTCCATCAAGATGTCATCAGTGCCCCAGGAAACCCCTCATGCAACCAGTCATCTGCTGTTCCCA
TAACAGCAAACCTCTCTAGGATCCCACACCGTGACAGGTGGAACCATAACAACGAACCTCTCCAGAAACCTCCAGTA
GGACCACTGGAGCCCTGTTACACGGCAGCTAGCTCTCTGGAGACCTCCAGAGGCACCTCTGGACCCCTCTTA
CCATGGCAACTGTCTCTCTGGAGACTTCCAAAGGCACCTCTGGACCCCTGTTACCATGGCAACTGACTCTCTGG
AGACCTCCACTGGGACCACTGGACCCCTGTTACCATGACAACCTGGCTCTCTGGAGCCCTCCAGCGGGGCCAGTG
GACCCAGGTCTCTAGCGTAAACTATCTACAATGATGTCTCCAACGACCTCCACCAACGCAAGCACTGTGCCCT
TCCGGAACCCAGATGAGAACTCACGAGGCATGCTGCCAGTGGCTGTGCTTGTGGCCCTGCTGGCGGTCATAGTCC
TCGTGGCTCTGCTCCTGCTGTGGCGCCGGCGGCAGAAGCGGCGGACTGGGGCCCTCGTGCTGAGCAGAGGTGGCA
AGCGTAACGGGGTGGTGGACGCCTGGGCTGGGCCAGCCCAGGTCCCTGAGGAGGGGGCCGTGACAGTGACCGTGG
GAGGGTCCGGGGGCGACAAGGGCTCTGGGTTCCCCGATGGGGAGGGGTCTAGCCGTGCGCCACGCTCACCACCTT
TCTTTGGCAGACGGAAGTCTCGCCAGGGCTCCCTGGCGATGGAGGAGCTGAAGTCTGGGTGAGGCCCCAGCCTCA
AAGGGGAGGAGGAGCCACTGGTGGCCAGTGAGGATGGGGCTGTGGACGCCCCAGCTCCTGATGAGCCCCGAAGGGG
GAGACGGGGCTGCCCCCTTAAGTGTTCGGTGAATAGTGAGGCTGGAGGCCGGAATCTCAGCCAGCCTCCAGCACCTT
CCCTCTCACCATCCCCTGCCCCCTCGCTCCCATGTTTCCACCCGGCACCCCTGATCCTCACCAGAACTCTCCTTTT
TTTTTTTCTTTTGGAGACAGAGTTTCGCTTTGTGCGCCAGGCTGGAGTGCAATGCACGATCTCAGTTCACTGCAAC
CTCTGCCTCCTAAGTTCAGGCGATTCTCCTGCCTCAGCTTCCCAGTAAGTGAATTACAGGCACCCACCACCAT
GCCAGCTGCTTTTTTGTATTTTTGGTAGAGATGGGGTTTACCATGTTGGCTAGGCTGGTCTCAAACCTCTGAC
CTCAGGTGATCTACCTGCCTCAGCCTCCCAAAGTGCTGAGATTACAGACATGAGCCTCCGCGCCTTGCTCCTCA
CCCACCTCTTCACTCTGAATCCTCATGAGGCTTCTCAGCCCTGGATTTCTGCTGCCATCCTCACCAGCACCCA
CAACTAGCGCTGGGCAGGGCAGGGCTGGCACCTCTCAACGTCTGTGGACTGAATGAATAAACCTCCTCATCCA
CCCC

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FIGURE 4512

MATLLLLLGVLVVSPDALGSTTAVQTPTSGEPLVSTSEPLSSKMYTTSITSDPKADSTGDQTSALPPSTSINEGS
PLWTSIGASTGSPLPEPTTYQEVS IKMSSVPQETPHATSHPAVPITANSLGSHTVTGGTITTTNSPETSSRTSGAP
VTTAASSLETSGTSGPPLTMATVSLETSGGTSGPPVTMATDSLETSTGTTGPPVTMTTGSLEPSSGASGPQVSS
VKLSTMMSP TTSINASTVPFRNPDENS RGMLPVAVLVALLAVIVLALLLLWRRRQKRRTGALVLSRGGKRNQV
DAWAGPAQVPEEGAVTVTVGGSGGDKGSGFPDGE GSSRRPTLT TFFGRRKSRQGS LAMEELKSGSGPSLKGE EEP
LVASEDGAVDAPAPDEPEGGDGAAP

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FIGURE 4513

GGTAACTTCTTGATGTTGCCGTGGCATTGTAAACTGTATGGTGCTGGTAGGAGTGTAGCAGGGAGGATGATGG
GAGGTCAGTCTTGTCTCTATTTTGGTTTTGGTGGGTTTTGGCCAGCTCCTTCACTGCAACCTGTTTTATCAGCAA
GGTCTTTATGACTGGTATTTTGTGCTGACCTTCTATGTCATCCTGTGACTTAGAATGCCTTAACCATCAGGGAAT
GCAGCCCAGTAGTTTCAGCCTCATTTTCCCGGCTCCTATTTAAGATGGAGTTGCTCTGGTTACACACCTCTGA
CATGATCATTGCCCACTGCGGCTTCCACCTCCCGGGTTCAAGAGATCCTCCTGCCTCACCTCCCAAGGTGCTGG
GACTACAGGTGTGTGCCACCACGCTCAGCTAATTTTGTATTTTTTGTAGAGATGGTGTTTTTCCATGTTGCCCA
GGCTGGTCTCAAACCTCTGGGCTCAAGCAATCCTTCTGTCTCAGCCTCCCAAAGTACTGGGATTACAGGCATGTC
CCACCATGCCCAGACTAATATTTACTTTTAATCAGACTAAGATAGGGTTACTACTTGAGTTGCTATGGCTCCAGC
TGAAAGAAAGCCCGTGTCAGTCATATCACGCGTAAACATTTGCTTTATGCTAAAAATATGGTGGACCTGGCATTAC
AGCTATTACAAATCTCCTAAGATGTCTCGGGTAGTGATTAGTTACTTTTCATACTGCTATGAAGAAATACTGGA
AACTGGGTAATTTATAAAGAAAAAGAGGTTTAATGTACTCACAGTTCCACAAGGCTGGAGAGGCCTCAGAATCAT
GGTGGAAGGCAAGGAGCAAAAAGGTATGTCCTCCATGGCAGCAGGCAAGAGAGCACGTGCAGGGAACTGCCCTT
TATAAAACCATCAGATTTAGTGAGATGTATTCATATCACGAGAACAGTATGGGAAAAACCTGCCCCCATGATTC
GATTACCTCCTACCGGGTCCCTCCCACGACACATGGGGATTATGGGAACTACAATTCAAGATGAAATTTGGGTGG
GGACGCAGCCAAACCATATCGGGTAGCAACAACCTAGGGTCAGTTTTGCAGGTGGTAAAGCCATTTACCAAGATA
GTTGTAGGTAAAGAAGGGCAGATTTATTAGAGAAATTGTGAAAATATGTTGCAGTGGGCAGTCTCAGCAGAGAAGG
GGCTACCTGCAAAGAGGCAAGGGCTGGAGGAAAGTTTTATAGGGTCCTGCTGAAGGGTGCTACGTGTGGAATGAG
GTCATTGTGCCCCGAGGTTGTTTGTGATTAGCTGTTTCTAACAATTGTTTCATACAATAATTGTTTCATTATTGTTT
TCAACTTGGGGCTCTCCCCAACCTGGGGACCTTCCTTATTGTTGCTTACTTATCAGGTCTCCACATAAAGGTGT
GGAACTTCATTTCATTATATCTTCAACACAAATTGTAGGTAGCCTGTTTTTTAAACATTTATTCAACAAATAT
TTAGTCCAAGCCACTATTACTTATTACCTTCTCTACTATTGTATGGACTTTTAACTATCTCTGACACTATTCACT
ATTCTTCCACATTCTCTATTATTTATACCTATGGTAAATTTGCCAGTTTGACCATACAATACTCAGAGG
AATATATAGAGTCTAGAAGAAAATATACAGGTCCTTAAAGGCTGCCCTGCCAACAAAACCATAACGCAGGAACAA
ACATCACAACATATGCCAAATAATCAATCCTACAATGTCCAAATTTTACTTTAAACTGGAATTTCCAGACTTCC
TTTCTGCATTAACCAGTTTAACTAGACAGTAACGAAATATTCCTACTTTATGCTGTGATAGTTTGTATTTATT
TATTTATTTATTTATTGAGACAGAGTTTCGCTCTTGTGTCAGTGAGCCAGGATCATGCCATTGCACTCCAGCCT
GGTCAACGGAGCGAGACTCCGCCTCATTAATAAAAAAAAAAAAAA

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FIGURE 4514

CGGTCCTTCTCAACAGGCCTGTGCCCCGCGGGGTCCGCCTCCTCTGGGACGCCTTCCTCCCGGCACAGAAGGCCT
CCCCCTCTCACCAGGGCCCTCGCCCGCTGGTCCGCCAGGCCCCGCCTTTTTTGCGGCCCCATTGTGCTGCTGGA
CCCGACGAGCAGTGTTGACAGTGAACCCACGTAGACGCGGCCCCGGTACCGGGGGTTCAGGCAGTAGAGCAGGT
AGACGCCGAAAAAGCGCCCTGGCCTCGCCGCGACCCCCGCGGGACCCATCGGGCCTTGCGGGTTCGGGAACACAG
CAGGGGGTTGATTGCCGTGACCTAGGGTCCAGGGGAGGGCTGGATCGCTAGGGCTGCAGGGTGCTTGCTTCGGAA
CAAGCTCTCGGGGACTATCCGGAGGCAGCCTGCAGGAAGCCGTAGCGCCGGTACGTGCCCTCTCCTGTCTGGAG
GCGGGTGTAGAAGTCCGACCGCGGAAGCCAGACTGCTGTCCAGTCGGCGAGCGCGTACCATTAGCATCGGCTCC
GCCCCAGTCCCACCTTCCTCAGGCTCTGATTGGCTGACACATGGCAAGCGCGAAAAGCCTGGACCGCTGGAAAGC
CCGGCTGCTTGAGGGCGGAAGTACTGCGTTGACGTACGCCTTAGTAAGGGCGGAAGTGAGTTTTCCAGCGGAAGT
GGCTCCTGTAAGGCAGCAAGGTAGCGTGGCCGGCGCCGAGCTGGGGTTGTGTCCCTGCTGGGCTGCCGTTCCAG
CTGGACTGCCGCCATGGAACCTCAGCGCCGAATACCTCCGCGAGAAGCTGCAGCGGGACCTGGAGGCGGAGCATGT
GGAGGTGGAGGACACGACCCTCAACCGTTGCTCCTGTAGCTTCCGAGTCCTGGTGGTGTGCGCCAAGTTCGAGGG
GAAACCGCTGCTTCAGAGACACAGGCTGGTGAACGCGTGCTAGCAGAAGAGCTCCCGCACATCCATGCCTTTGA
ACAGAAAACCTGACCCAGACCAGTGGGCACGTGAGCGACAGAAATGAGGGACTGGGATCTGCACAGCCATTAA
ATTATAAATCTGG

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FIGURE 4515

MASAKSLDRWKARLLEGGSTALTYALVRAEVSFPAEVAPVRQQGSVAGARAGVVSLLGCRSSWTAAMELSAEYLR
EKLQRDLEAEHVLPSPGGVGQVRGETAASETQVLYRVMRCVTAANQVFFSEAVLTAANERVGVLLGSLDPSMTIH
CDMVITYGLDQLENCQTCGTDYIISVLNLLTLIVEQINTKLPSSFVEKLFIPSSKLLFLRYHKEKEVVAVARAVY
QAVLSLKNIPVLETAYKLILGEMTCALNNLLHSLQLPESCSEIKHEAFKNHVFNVDAKFVVKFDLSALTTIGNA
KNSLIGVSL

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[illegible]

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FIGURE 4517

MSRQVVRSSKFRHVFQQPAKADQCYEDVRVSQTTWDSGFCAVNPKFVALICEASGGGAFLVLPLGKTGRVDKNAP
TVCGHTAPVLDIAWCPHNDNVIASGSEDCTVMVWEIPDGGMLPLREPVVTLLEGHTKRVGIVAWHTTAQNVLLSA
GCDNVIMVWDVGTGAAMLTLGPEVHPDTIYSVDWSRDGGICTSCRDKRVRIEPRKGTVVAEKDRPHEGTRPVR
AVFVSEGKILTTGFSRMSEQRVALWDTKHLEEPLSLQELDTSSGVLLPFFDPDTNIVYLCGKGDSSIRYFEITSE
APFLHYLSMFSSKESQRMGYMPKRGLEVNKCEIARFYKLHERRCEPIAMTVPRKSDLFQEDLYPPTAGPDPALT
AEEWLGGRDAGPLLI SLKDGYPVPPKSREL RVNRGLDTGRRRAAPEASGTPSSDAVSRLEEEMRKLQATVQELQKR
LDRLEETVQAK

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GCCACGAAGGCCGAGAGCCGGAACCGGAGTGCAGCGGGCGGAGACCCCTGTGCGGTGCGGAGGGGGCGCGGCC
CCGACTCTGACCCGCGCCGGGGGTGGGCCATGGCGGAGATCAGCGACCTGGACCGGCAGATCGAGCAGCTGCGTC
GCTGCGAGCTCATCAAGGAGAGCGAAGTCAAGGCCCTGTGCGCTAAGGCCAGAGAGATCTTGGTAGAGGAGAGCA
ACGTGCGAGAGGGTGGACTCGCCAGTCAAGTGTGCGGCGACATCCATGGACAATTCTATGACCTCAAAGAGCTGT
TCAGAGTAGGTGGCGACGTCCCTGAGACCAACTACCTCTTCATGGGGGACTTTGTGGACCGTGGCTTCTATAGCG
TCGAAACGTTCTCTGCTGCTGGCACTTAAGGTTGCTATCTTGATCGCATCACACTGATCCGGGGCAACCATG
AGAGTCGCCAGATCACGCAGGTCTATGGCTTCTACGATGAGTGCCTGCGCAAGTACGGCTCGGTGACTGTGTGGC
GCTACTGCACTGAGATCTTTGACTACCTCAGCCTGTGAGCCATCATCGATGGCAAGATCTTCTGCGTGCACGGGG
GCCTCTCCCCCTCCATCCAGACCCTGGATCAGATTGCGACAATCGACCGAAAGCAAGAGGTGCCTCATGATGGGC
CCATGTGTGACCTCCTCTGGTCTGACCCAGAAGACACCACAGGCTGGGGCGTGAGCCCCGAGGAGCCGGCTACC
TATTTGGCAGTGACGTGGTGGCCAGTTCAACGCAGCCAATGACATTGACATGATCTGCCGTGCCACCAACTGG
TGATGGAAGGTTACAAGTGGCACTTCAATGAGACGGTGCTCACTGTGTGGTGGCACCCAACTACTGCTACCGCT
GTGGGAATGTGGCAGCCATCTTGGAGCTGGACGAGCATCTCCAGAAAGATTTTCATCATCTTTGAGGCTGCTCCCC
AAGAGACACGGGGCATCCCCCTCCAAGAAGCCCGTGGCCGACTACTTCTGTGACACCCGCGCCCGGCCCTGCCCCCT
CCAACCCCTTCTGGCCCTCGCACCCTGTGACTCTGCCATCTTCTCAGACGGAGGCTGGGCGTGGGGGGGGCTGT
CCTGGCTCTGCTGTCCCCAAGAGGGTGCTTCGAGGGTGAGGACTTCTCTGGAGAGGCCTGSAGACCTAGCTCCA
TGTTCTCTCTCTCTCTCCCCACTTGAACCATGAAGTTTCCAATAATTTTTTTTTTCTTTTTTCTTTTCTTTTTTCT
TGTTTGTTTTTAGATAAAAAATTTTGAGAAAAAAATGAAAAAATTTCTAATAAAAGAAGAAAAATGAAAAAAA
AAAAA
AAAA

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FIGURE 4519

MAEISDLDRQIEQLRRCELKESEVKALCAKAREILVEESNVQRVDSPVTVCGDIHGQFYDLKELFRVGGDVPET
NYLFMGDFVDRGFYSVETFLLLLALKVRYPDRLTIRGNHESRQITQVYGFYDECLRKYGSVTVWRYCTEIFDYL
SLSAIIIDGKIFCVHGGLSPSIQTLQIRTIDRKQEVPHDGPMCDLLWSDPEDTTGWGVSPRGAGYLFGSDVVAQF
NAANDIDMICRAHQLVMEGYKWHFNETVLTVWSAPNYCYRCGNVAAILLEHLQKDFIIFEAAPQETRGI PSKK
PVADYFL

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FIGURE 4520

AGTACCGGGTACGCAGGGGTGCCTCAACCACACTCCGTCCACGGACTCTCCGTTATTTTAGGAGGTCCCTGGCCA
AAGATTTATTTCTCTTGACAACCAAGGGCCTCCGTCTGGATTTCCAAGGAAGAATTTCTCTGAAGCACCAGAAC
TTGCTACTACCAGCACCATGCCCTACCAATATCCAGCACTGACCCCGGAGCAGAAGAAGGAGCTGTCTGACATCG
CTCACCGCATCGTGGCACCTGGCAAGGGCATCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGC
AGTCCATTGGCACCGAGAACACCGAGGAGAACCGGCGCTTCTACCGCCAGCTGCTGCTGACAGCTGACGACCGCG
TGAACCCCTGCATTGGGGGTGTCTCTCTTCCATGAGACACTCTACCAGAAGGCGGATGATGGGCGTCCCTTCC
CCCAAGTTATCAAATCCAAGGGCGGTGTTGTGGGCATCAAGGTAGACAAGGGCGTGGTCCCCCTGGCAGGGACAA
ATGGCGAGACTACCACCCAAGGGTTGGATGGGCTGTCTGAGCGCTGTGCCAGTACAAGAAGGACGGAGCTGACT
TCGCCAAGTGGCGTTGTGTGCTGAAGATTGGGGAACACACCCCTCAGCCCTCGCCATCATGGAAAATGCCAATG
TTCTGGCCCGTTATGCCAGTATCTGCCAGCAGAATGGCATTGTGCCCATCGTGGAGCCTGAGATCCTCCCTGATG
GGGACCATGACTTGAAGCGCTGCCAGTATGTGACCGAGAAGGTGCTGGCTGCTGTCTACAAGGCTCTGAGTGACC
ACCACATCTACCTGGAAGGCACCTTGCTGAAGCCCAACATGGTCAACCCAGGCCATGCTTGCACTCAGAAGTTTT
CTCATGAGGAGATTGCCATGGCGACCGTCACAGCGCTGCGCCGCACAGTGCCCCCGCTGTCACTGGGATCACCT
TCCTGTCTGGAGGCCAGAGTGAGGAGGAGGCGTCCATCAACCTCAATGCCATTAAAGTGCCCCCTGCTGAAGC
CCTGGGCCCTGACCTTCTCCTACGGCCGAGCCCTGCAGGCCTCTGCCCTGAAGGCCTGGGGCGGGAAGAAGGAGA
ACCTGAAGGCTGCGCAGGAGGAGTATGTCAAGCGAGCCCTGGCCAACAGCCTTGCCCTGTCAAGGAAAGTACACTC
CGAGCGGTCAGGCTGGGGCTGCTGCCAGCGAGTCCCTCTTCGTCTCTAACCACGCCTATTAAGCGGAGGTGTTCC
CAGGCTGCCCCCAACAACCTCCAGGCCCTGCCCCCTCCCACTCTTGAAGAGGAGGCCGCTCCTCGGGGCTCCAGG
CTGGCTTGCCCCGCGCTCTTCTTCCCTCGTGACAGTGGTGTGGTGTGCTGTGAATGCTAAGTCCATCACCC
TTTCCGGCACACTGCCAAATAAACAGCTATTTAAGGGG

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FIGURE 4521

MPYQYPALTPEQKKELSDIAHRIVAPGKGILAADESTGSI AKRLQSIGTENTENRRFYRQLLLTADDRVNPCIG
GVILFHETLYQKADDGRFPQVIKSKGGVVGIVDKGVVPLAGTNGETTTQGLDGLSERCAQYKKDGADFAKWRC
VLKIGEHTPSALAIMENANVLARYASICQQNGIVPIVEPEILPDGDHDLKRCQYVTEKVLAAVYKALSDHHIYLE
GTLLKPNMVTFGHACTQKFSHEEIAMATVTALRRIVPPAVTGITFLSGGQSEEEASINLNAINKCPLLKPWALTF
SYGRALQASALKAWGGKKENLKAAQEEYVKRALANSLACQGKYTPSGQAGAAASESLFVSNHAY

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FIGURE 4522

GGCACGAGGCGGCCTCCCTGCCCTTCACGGCCCGCCTGCCTCCCTGCCCAAGTCCTGAGCCACCATGCTGACCC
CGATGGTGGCCGGGGGGGTGGTGTTCCTCGGACTCTTCTCCTCTCCAAGAACACGCTCCAGCGGCTGCCCCAGC
TACGCTGGGAGGAGGCCGACGCAGTCATTGTCTCAGCCAGGCTGGTGTCTCTGTCCAGGCCATCATGGCCTCCA
CTGCCGGCTACATCGTCTCCACCTCCTGCAAGCACATCATTGATGACCAACACTGGCTGTCTCTGCCTACACGC
AATTGTCTGTGCCCTACTTCATCTACGACATCTACGCCATGTTCTCTGTCACTGGCACAAGCACCAGGTCAAAG
GGCATGGAGGGGACGACGGAGCGGCCAGAGCCCCGGGCAGCACGTGGGCCATAGCGCGTGGCTACCTGCACAAGG
AGTTCCTCATGGTGTCTCCACCATGCCGCCATGGTGTCTGGTGTGCTTCCCACTCTCAGTGGTGTGGCGACAGGGTA
AGGGAGACTTCTTTCTGGGTGTCATGTTGATGGCAGAGGTGAGCACGCCCTTCGTCTGCCTTGGCAAGATCCTCA
TCCAGTACAAGCAGCAGCACACACTGCTGCACAAGGTGAACGGGGGCCCTGATGCTGCTCAGCTTCTCTGCTGCC
GGGTGCTGCTCTTTCCCTACCTGTACTGGGCCTACGGGCGCCATGCCGGCCTGCCCTGCTGGCCGTGCCCCTGG
CCATCCCTGCCCACGTCAACCTGGGCGCTGCGCTGCTCTGGCCCTCAGCTCTACTGGTTCTTCTCTCATCTGCC
GTGGGGCCTGCCGCTCTTCTGGCCCCGCTCCCGGCCGCCCGGCCCTGCCAGGCCCAGGACTGAGGCCGGGGGC
CGGGACCCCTCCCCCTCCCCACCCCCACCCCCGTGGAGACAGGGCTCTGGGGCTGATGGCTGGGGTTGGGAGCCAG
GGTCTCTTGCCCCGGACAACCCAGGACTGACGATGACCCCGAAAGGGAAGAGGCCCATCTCTCGGGGACTGAG
GGGGTGGAGAGAGGGGACCTCTTCCCCCTACTCTGCCCTTCTGTCACACCCTTGCGCTGGAGGAGGGGAGGGG
GCACCGCTTCCACCCACTGAGGGCAGGAGGGCTTGTGGGGAGGGACACCAACAGGGTTTCAAGGGGACCAGGAG
TCAGAATGTGGGGAGACGCTCTGCCAAGGCCATCCCAGCCCCATGCTGCCATCCCCCAGGGCTCCCCATCACC
CGAGAGGAGAGGACGCCCCAACTAACCCCCGCTGGCCCTCGGGCCTCCCGAGTGGCCGGCTGCAACCACGGCTCC
TCTCCAGGGTAGGCCAGCTTGAGGAATCTTATTTATTTTATTTATTTATTTACCCAAATTTGAAGTAGTCTGTTGGGT
GGGGGAAGGAGGTGGCTGCTACCCCCAAGCCTTCCAGTGTGACAACCCCGGGGGCAGGCGAGGGCGCCAGTC
CCTCACCATCGGCTGCACATCGCGCCCTCGGGCCCTGCCATGTCCCTGGTGTCTACTGACCTCTCAAGGCTTCCTC
CAATCTGGGGTCGGGGGACCTGGGAGGTGCTTTACAGACCGCTAATAAAAGACGATCTGCGTGAACGCCAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4523

MASTAGYIVSTSCCKHIIDDQHWLSSAYTQFAVPYFIYDIYAMFLCHWHKHQVKGHGGDDGAARAPGSTWAIARGY
LHKEFLMVLHHAAMVLVCFPLSVVWRQGKGDFFLGCMLMAEVSTPFVCLGKILIQYKQQHTLLHKVNGALMLLSF
LCCRVLLFPYLYWAYGRHAGLPLLAVPLAIPAHVNLGAALLLAPQLYWFFLICRGACRLFWRPSRPPPPACQAQD

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FIGURE 4524

CGTTGGCCCTTGGCCGCGGACCGCGTGGGCCGAGAACTTTGCCAGACGAGACTTGTTTTCTCTGGGCAGTTGGAG
GGTCTCGCGGCTCCTACCCCTTTTTTGGAAACGGATCATTTTTAAAAGTTCTCGTTAGAAACCAATTGCGCGCCGGCA
CCCTTTGGGTGAAACCTAATCAGCCCCGCGACGCTGCCTTTCTCACTGGTCACGGGCAACAGCTAGGCTGCTGTTA
TTTCGCAAGGCAGAAGAGAAAAGGCATCCTCGCGAGCAGATGAGGAACCTCGGGGATAAATCCTTTTGTGGCTTC
AAGTGTCTAAGTACATTAGAGTCAGGAACGGCGCTTTCCAGCGTCCGCCATTTTTGTGGCGTCACCGCGTCGCTG
CTACGGCTTGGGGTAGCGGGAGGGCAGACTCTGGGCGCCACTCCCGGGCCGGTCATGAACGGGCCGGCGGACGGC
GAAGTGGACTACAAAAAAAATACCGGAATCTGAAGCGGAAGCTCAAGTTCCTCATCTACGAGCACGAGTGCTTC
CAGGAGGAGCTGAGGAAAGCGCAAAGGAAATTACTGAAGGTGTCCCGGGACAAGAGTTTCCTCCTAGACCGACTT
CTGCAGTACGAGAACGTGGATGAAGACTCTTCGGACTCAGATGCCACTGCATCATCAGATAACAGCGAGACGGAG
GGGACACCCAAGTTGTCTGACACACCGGCCCTAAGAGGGTTTCCCCTTCAGGCCTCCGGGGTCCCCTCCCATA
CCTGAGCTCGCTGGCCTCCTCCCGCTACCCCCCATTCCTTCTGACTACCTGGCCCTGCAGCTGCCCAGAGCCAG
TCCCCTGAGGCCCAAGCGGGAGAAACGGCCCCGCCTGCCCCGAAACTCAAGATGGCGGTGGGACCCCCGACTG
CCCTGTGGGAGGGCCGCTGACCTTCCCTGGCCGGGGTTCTGGGGCTGGGGTCGGGACAACCCTGACCCCCCTCCC
ACCCCCTAAGATGCCCCCCCCACGATCCTGAGCACGGTCCCTCGGCAGATGTTACGCGATGCAGGTAGCGGGGA
CGATGCCTTGGATGGAGACGATGACCTGGTGATCGACATCCC

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FIGURE 4525

MRNLGDKSFCGFKCLSTLES GTALSSVRHF CGVTASLLRLGVAGGQTLGATPGPVMNGPADGEVDYKKKYRNLKR
KLKFLIYEHECFQEELRKAQRKLLKVS RDKSFLLDRL LQYENVDE DSSDSDATASSDNSETEGTPKLS DTPAPKR

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FIGURE 4526

CCGAGGTTCTCATCTGCTCGCGAGGATGCCTTTTCTCTTCTGCCTTGCGAAATAACAGCAGCCTAGCTGTTGCC
CGTGACCAAGTGAGAAAGGCAGCGTCGCGGGCTGATTAGGTTTACCCAAAGGGTGCCGGCGCCGAATTGGTTTCT
AACGAGAACTTTTAAATGATCCGTTCCAAAAAGGGTAGGAGCCGCGAGACCCTCCAAGTGCAGAGAAAAACA
AGTCTCGTCTGGCAAAGTTCTCGGCCCACGCGGTCCGCGGCCAAGGGCCAACGGTCCCTCGCCCCACGTTGCCGC
AGCACTGCGCGTGCGCGAGCCGCTGTCAAACGCGCTGACGGAGGCCGAGAAGAAAAAAGGCGGGAGCCGTCAT
CCCCGGTTGAGCAAAATGGCGCGGAGAGGAGATGCAGGAGTTACCCGTAGCTTCTTCCGAGGCCGCCGGAC
CTCAGCACGCTTACGCATTCCATCGTGCGGCGGAGGTACTTAGCTCACTCGGGCCGCGAGCCACCTGGAGCCCGAG
GAGAAGCAGGCACTGAAGCGGCTGGTGGAGGAGGAGCTGCTGAAGATGCAGGTGGATGAAGCCGCTTCCAGGGAA
GACAAACTGGACCTTACCAAGAAGGGCAAGAGGCCTCCCACCCCTTGTAGCGACCCGGAGAGAAAAAGGTTCCGC
TTCAATTAGAGTCGGAGTCCGGCTCTGAAGCCTCCAGCCAGACTACTTTGGACCCCGAGCAAGAATGGGGTG
GCAGCAGAGCTCAGCCAGCCAAAGAGGAGAATCCAAGGCGAGCCTCAAAGGCAGTTGAGGAGAGCAGTGATGAG
GAACGGCAGAGGGACCTGCCCGCACAGAGGGGAGAGGAGAGCAGTGAGGAGGAGGAAAAAGGGGTACAAGGGGAAG
ACTAGGAAGAAACCTGTGGTAAAGAAGCAGGCACCAGGCAAGGCCTCAGTCAGTAGGAAGCAGGCCAGGGAAGAA
AGTGAGGAGAGCGAGGCAGAACCCGTTTCAAGGACAGCAAGAAGGTGGAGGGAAATAAAGGAACTAAAAGCCTG
AAGGAAAGTGAACAGGAGAGTGAAGAGGAGATCCTAGCCAGAAAGAGAGCAGAGAGAGGAGGAAGTGGAGGAG
GAAGAGAAAGAAGAGGATGAGGAAAAGGGGGATTGGAACCCAGAACCCAGGAGCAATGGCCGGAGAAAGTCAGCT
AGGGAGGAGAGGAGCTGTAAGCAGAAAAGCCAGGCAAGAGGCTCTTGGGAGACTCAGACAGCGAGGAAGAGCAG
AAAGAGGCAGCCAGCAGTGGGGATGACAGTGGGAGAGATAGAGAACCCCAAGTGCAGAGGAAGAGTGAGGACAGG
ACCCAGCTTAAGGGTGGGAAGAGGTTGAGTGGAAGCAGCGAGGACGAGGAAGACAGTGGGAAGGGGGAAACCCACA
GCTAAAGGCTCTAGAAAGATGGCCAGACTGGGCAGCACCAAGTGGTGAGGAAAGTGACTTGGAGAGGGAGGTAAGT
GACAGCGAGGCAGGGGGAGGCCCCAGGGGGAGAGGAAGAACCCTCTTCCAAGAAGAGCTCCAGGAAAGGCAGG
ACACGAAGCTCCTCTTCTCTCAGATGGAAGTCCAGAGGCCAAAGGAGGGAAAGGCTGGCTCAGGTCGCCGTGGA
GAGGACCACCCGGCTGTGATGAGGCTGAAGCGCTACATTGCGGCCTGTGGTGCCCATCGAAACTACAAGAAGCTG
TTGGGCTCCTGTTGCTCACACAAGGAGCGCCTGAGTATCCTCCGGGCAGAACTGGAAGCGCTAGGCATGAAGGGT
ACCCCTTCCCTAGGGAAGTGTGCGGCCCTGAAGGAGCAGAGGGAGGAGGCAGCTGAGGTGGCCTCCTTGATGTT
GCGAACATCATCAGTGGCTCGGGCCGGCCACGCAGACGTACAGCCTGGAACCCCTTTAGGAGAAGCAGCACCCCA
GGGAGCTGTACCGACGGACCCCTGGACTCAGATGAAGAGCGGCCCGTCCCGCACCCCGAGACTGGTCACATATG
CGTGGCATCATCAGCAGTGATGGCGAGAGTAACTGAGCTCTGCCACCCCGAGGAGGACCCCTTGATACATGTACA
AAGCATACATAGCACCCCTTGCCCTGTGTCTGTGGAACAGAAGCAGCTTCCTTCAGAGAAGACTGCAGCTCCCAA
GGACACAAGCTGTTGGGATGCTACTTCTCAGCTTACGCTGTCCCTTTAAGGTGTTTATTTTTTAAGACTCAATA
AAGGAGTGTTTTTAATCACCTC

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FIGURE 4527

AGCAGGGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGCGCAGTTATAGCTCACTGCAGCCTTGAACCTCCTGG
GCTCAAGTGATCCTTCCACCTCAGCCTCCCTAGTAGCTGGGACCACAGGTGGTGACTTCCAAGAGTGACTCCGTC
GGAGGAAAATGACTCCCCAGTCGCTGCTGCAGACGACACTGTTCTGCTGAGTCTGCTCTTCTGGTCCAAGGTG
CCCACGGCAGGGGCCACAGGGAAGACTTTTCGCTTCTGCAGCCAGCGGAACCAGACACACAGGAGCAGCCTCCACT
ACAAACCCACACCAGACCTGCGCATCTCCATCGAGAACTCCGAAGAGGCCCTCACAGTCCATGCCCTTTCCCTG
CAGCCCACCCTGCTTCCCGATCCTTCCCTGACCCCAGGGGCCTCTACCACTTCTGCCTCTACTGGAACCGACATG
CTGGGAGATTACATCTTCTCTATGGCAAGCGTGACTTCTTGCTGAGTGACAAAGCCTCTAGCCTCCTCTGCTTCC
AGCACCAGGAGGAGAGCCTGGCTCAGGGCCCCCGCTGTTAGCCACTTCTGTACCTCCTGGTGGAGCCCTCAGA
ACATCAGCCTGCCAGTGCCGCCAGCTTACCTTCTCCTTCCACAGTCTCCCCACACGGCCGCTCACAATGCCT
CGGTGGACATGTGCGAGCTCAAAGGGACCTCCAGCTGCTCAGCCAGTTCCTGAAGCATCCCCAGAAGGCCCTCAA
GGAGGCCCTCGGCTGCCCCGCCAGCCAGCAGTTGCAGAGCCTGGAGTCGAAACTGACCTCTGTGAGATTATGG
GGGACATGGTGTCTTTCGAGGAGGACCGGATCAACGCCACGGTGTGGAAGCTCCAGCCCACAGCCGGCCTCCAGG
ACCTGCACATCCACTCCCGGCAGGAGGAGGAGCAGAGCGAGATCATGGAGTACTCGGTGCTGCTGCCTCGAACAC
TCTTCCAGAGGACGAAAGGCCGGAGCGGGGAGGCTGAGAAGAGACTCCTCCTGGTGGACTTCAGCAGCCAAGCCC
TGTTCCAGGACAAGAATTCCAGCCAAGTCTCTGGGTGAGAAGGTCTTGGGGATTGTGGTACAGAACCCAAAGTAG
CCAACCTCACGGAGCCCCGTGGTGTCTACTTTCAGCACCAGCTACAGCCGAAGAATGTGACTCTGCAATGTGTGT
TCTGGGTGGAAGACCCACATGTGACAGCCCGGGGCATTGGAGCAGTGTGGGTGTGAGACCGTCAGGAGAGAAA
CCCAAACATCCTGCTTCTGCAACCCTTGACCTACTTTGCAGTGTGATGGTCTCCTCGGTGGAGGTGGACGCCG
TGCACAAGCACTACCTGAGCCTCCTCTCCTACGTGGGCTGTGTCTCTGCCCCTGGCCTGCCTTGTACCATTTG
CCGCCTACCTCTGCTCCAGGGTGGCCCTGCCGTGCAGGAGGAAACCTCGGGACTACACCATCAAGGTGCACATGA
ACCTGCTGCTGGCCGTCTTCTGCTGGACACGAGCTTCTGCTCAGCGAGCCGGTGGCCCTGACAGGCTCTGAGG
CTGGCTGCCGAGTGCATCTTCTGCACTTCTCCTGCTCAGCTGCCTTTCTGGATGGGCTCGAGGGGT
ACAACCTCTACCGACTCGTGGTGGAGGTCTTGGCACCTATGTCCCTGGCTACCTACTCAAGCTGAGCGCCATGG
GCTGGGGCTTCCCCATCTTCTGCTGACGCTGGTGGCCCTGGTGGATGTGGACAACATATGGCCCCATCATCTTGG
CTGTGCATAGGACTCCAGAGGGCGTCATCTACCCTTCCATGTGCTGGATCCGGGACTCCCTGGTCAGCTACATCA
CCAACCTGGGCCTCTTACGCTGGTGTCTTCTGTTCAACATGGCCATGCTAGCCACCATGGTGGTGCAGATCCTGC
GGCTGCGCCCCACACCCAAAAGTGGTCACATGTGCTGACACTGCTGGGCCTCAGCCTGGTCTTGGCCTGCCCT
GGGCCTTGATCTTCTTCTCCTTTGCTTCTGGCACCTTCCAGCTTGTGCTCCTCTACCTTTTCAGCATCATCACCT
CCTTCCAAGGCTTCTCATCTTTCATCTGGTACTGGTCCATGCGGCTGCAGGCCCGGGTGGCCCTCCCTCTGA
AGAGCAACTCAGACAGCGCCAGGCTCCCCATCAGCTCGGGCAGCACCTCGTCCAGCCGCATCTAGGCCTCCAGCC
CACCTGCCCATGTGATGAAGCAGAGATTGGCCCTCGTGCACACTGCCTGTGGCCCCGAGCCCGGCCAGCCCC
AGGCCAGTCAGCCGACAGCTTTGGAAAGCCCAACGACCATGGAGAGATGGGCCGTTGCCATGGTGGACGGACTCC
CGGGCTGGGCTTTTGAATTGGCCTTGGGGACTACTCGGCTCTCACTCAGCTCCCACGGGACTCAGAAGTGCGCCG
CCATGCTGCCTAGGGTACTGTCCCCACATCTGTCCAACCCAGCTGGAGGCCTGGTCTCTCCTTACAACCCCTGG
GCCCAGCCCTCATTGCTGGGGGCCAGGCCTTGGATCTTGAGGGTCTGGCACATCCTTAATCCTGTGCCCTTGCTT
GGGACAGAAATGTGGCTCCAGTTGCTCTGTCTCTCGTGGTACCCCTGAGGGCACTCTGCATCCTCTGTCAATTTA
ACCTCAGGTGGCACCCAGGGCGAATGGGGCCAGGGCAGACCTTCAAGGCCAGAGCCCTGGCGGAGGAGAGGCC
TTTGCCAGGAGCACAGCAGCAGCTCGCCTACCTCTGAGCCC

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FIGURE 4528

AGGGCTTCCTGAAGAAATGAGAAGGACAATGCCCTGCTGTCTGCCATCGAAGAGTCCCGGAAGAGGACCTTCGGCA
TGGCTGAGGAGTACCATCGGGAGTCAATGTTGGTTGAGTGGGAGCAAGTGAAACAGCGAATTCTGCACACACTGC
TGGCATCAGGAGAAGACGCCCTTGACTTTACTCAAGAAAGCGAGCCAAGCTACATCAGTGATGTGGGACCCCTG
GTCGAAGCTCTCTGGATAACATCGAGATGGCCTATGCGCGGCAAATTTATATCTATAATGAGAAAATTGTAAATG
GACACCTGCAGCCTAACCTGGTGGACCTTTGTGCTTCCGTGCGAGAGCTCGATGATAAGAGCATTTCGGACATGT
GGACCATGGTAAAACAAATGACAGACGTGTTGTTGACACCGGCAACGGATGCCCTGAAGAACCGCAGCAGCGTGG
AAGTGCAGTGGAGTTTGTGAGGACGGCCTTGGCGTACCTTGAGCAGAGTTATAAGAATTACACCCTTGTGACTG
TCTTTGGAAATTTGCATCAGGCCCAGCTGGGCGGGGTGCTGGGACTTACCAATTGGTTTGAAGTTTCTGAACA
TTAACTGCCAGCTCCCTTGCCCTGGACTACAGGATGGAGAGGTGGAAGGCCATCCTGTGTGGGCGCTAATTTACT
ACTGCATGCGCTGTGGAGACCTGCTTGCCGCTTACAGGTAGTTAATCGAGCCCAGCACCAGCTGGGAGAGTTTA
AACTGGTTCCAGGAGTACATGAACAGCAAGGACAGAAAGATTGTCCCGAGCTACGGAAAACAAGCTCCGGCTGC
ATTACCGTAGGGCCCTCAGGAACAATACAGATCCCTACAAGCGGGCCGTGTACTGTATCATTGGCAGATGTGACG
TCACCGACAACCAGAGTGAAGTGGCGGACAAAAGTGAAGTTACCTGTGGCTGAAGTTGAACCAAGTGTGTTTG
ACGACGATGGCACCAGCTCCCCACAAGACAGGCTCACTCTCTCAGATTCCAGAAGCAGTTGTTGGAAGACTATG
GCGAGTCCCCTTTACGGTGAACCAGCAACCCTTCCCTCACTTCCAAGTCCGTGTTCCCTGACAGCGCAGTTTGAAG
CAGCAGTTGCCCTTTCTTTTCCGCATGGAGCGGCTGCGCTGCCATGCTGTCCATGTAGCACTGGTGTGTTTGAGC
TGAAGCTGCTTTTAAAGTCCCTGACAGAGTGCTCAGCTCCTCAGCCACGAGCCTGGTGACCCCTCCTTGCTTGC
GGCGGCTGAACCTTCGTGCGGCTCCTCATGCTGTACACCCGGAAGTTTGAGTCCACGGACCCAAGGGAGGCCCTCC
AGTACTTCTATTTCTCAGGGATGAGAAAGATAGTCAAGGAGAAAACATGTTTCTGCGCTGTGTGAGTGAGCTTG
TGATTGAAAGCCGAGAGTTTCGATATGATTCTTGGGAACTAGAGAATGACGGAAGTAGAAAGCCTGGAGTCATAG
ATAAGTTTACTAGTGACACAAAGCCTATTATCAACAAAGTTGCTTCTGTGGCAGAAAATAAAGGACTGTTTGAAG
AGGCAGCAAAGCTGTATGACCTTGCCAAGAATGCTGACAAGGTACTGGAGCTGATGAACAAACTGCTGAGCCCTG
TCGTCCCCCAGATCAGTGCCCCGCAATCCAACAAGGAGAGGCTGAAGAACATGGCACTCTCCATTGCCGAACGGT
ATAGGGCTCAAGGAATAAGCGCAAATAAATTTGTGGACTCCACGTTCTATCTTCTTTTGGACTTGATCACCTTTT
TTGACGAGTATCATAGTGGTCATATTGATAGAGCTTTTGATATCATTGAGCGCTTGAAGCTGGTGCCCTGAATC
AGGAAAGTGTGGAAGAGAGAGTGGCTGCCCTTCAGAAATTTTCAAGTATGAAATCAGGCACAACCTCTCAGAAGTGC
TTCTTGCCACCATGAACATCTTGTTACACAGTTTAAAGAGGCTCAAGGGGACAAGTCCATCCTCGTCATCCAGGC
CCCAGCGAGTCATCGAGGACCGCGACTCTCAACTCCGAAGTCAAGCCCGCACTCTGATTACCTTTGCTGGAATGA
TACCATAACGAACGTCTGGGGACACCAATGCGAGGCTGGTGCAGATGGAGGTCCCTCATGAATTAAGTGCCATGCT
TTGTGGGAGTCTGGGTGGGCACACTGTGAGTACATCAGGCACATGGGCCCACTAGGCTGGGGTTTCTGGTTTTGT
TTCTGTTGTGTTTTGTTTTGGTTTTCTGTATTATGTATTTTGTCAACGCCAATAAATTTCTTTGATTTGT

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FIGURE 4529

MAEEYHRESMLVEWEQVKQRI LHTLLASGEDALDFTQESEPSYISDVGPPGRSSLDNIEMAYARQIYIYNEKIVN
GHLQPNLVDLCASVAELDDKSISDMWTMVKQMTDVLLTPATDALKNRSSVEVRMEFVRQALAYLEQSYKNYTLVT
VFGNLHQAQLGGVPGTYQLVRSFLNIKLPAFLPGLQDGEVEGHPVWALIYYCMRCGDLLAASQVVNRAQHQLGEF
KTWFQEYMNSKDRRLSPATENKLRLHYRRALRNNTDPYKRAVYCIIGRCDVTDNQSEVADKTEDYLWLKLNQVCF
DDGTSSPQDRLTLSQFQKQLLEDYGESHFTVNQQPFLLYFQVLFILTAQFEAAVAFLFRMERLRCHAVHVALVLFE
LKLLLKSSGQSAQLLSHEPGDPPCLRRNLNFVRLMLYTRKFESTDPREALQYFYFLRDEKDSQGENMFLRCVSEL
VIESREFDMILGKLENDGSRKPGVIDKFTSDTKPIINKVASVAENKGLFEEAAKLYDLAKNADKVLELMNKLLSP
VVPQISAPQSNKERLKNMALSIAERYRAQGISANKFVDSTFYLLDLITFFDEYHSGHIDRAFDIERLKLVLPLN
QESVEERVAEFRNFSEIRHNLSEVLLATMNLFTQFKRLKGTSPSSSRPQRVIEDRDSQLRSQARTLITFAGM
IPYRTSGDTNARLVQMEVLMN

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FIGURE 4530

GACGTGAACGGTCGTTGCAGAGATTGCGGGCGGCTGAGACGCCGCCTGCCTGGCACCTAGGAGCGCAGCGGAGCC
CCGACACCGCCGCCGCCGCGCCATGGAGTCCGAGACCGAACCCGAGCCCGTCACGCTCCTGGTGAAGAGCCCCAACCC
AGCGCCACCGCGACTTGGAGCTGAGTGGCGACCGCGGCTGGAGTGTGGGCCACCTCAAGGCCACCTGAGCCGCG
TCTACCCCGAGCGTCCGCGTCCAGAGGACCAGAGGTTAATTTATTCTGGGAAGCTGTTGTTGGATCACCAATGTC
TCAGGGACTTGCTTCCAAAGCAGGAAAAACGGCATGTTTTGCATCTGGTGTGCAATGTGAAGAGTCCTTCAAAAA
TGCCAGAAATCAACGCCAAGGTGGCTGAATCCACAGAGGAGCCTGCTGGTTCTAATCGGGGACAGTATCCTGAGG
ATTCTCAAGTGATGGTTTAAGGCAAAGGGAAGTTCTTCGGAACCTTTCTTCCCCTGGATGGGAAAACATCTCAA
GGCCTGAAGCTGCCCAGCAGGCATTCCAAGGCCTGGGTCTGGTTTCTCCGGTTACACACCCTATGGGTGGCTTC
AGCTTTCCTGGTTCAGCAGATATATGCACGACAGTACTACATGCAATATTTAGCAGCCACTGCTGCATCAGGGG
CTTTTGTTCACCAACCAAGTGCACAAGAGATACCTGTGGTCTCTGCACCTGCTCCAGCCCCTATTCAACACAGT
TTCCAGCTGAAAACAGCCTGCCAATCAGAATGCTGCTCCTCAAGTGGTTGTTAATCCTGGAGCCAATCAAAATT
TGCGGATGAATGCACAAGGTGGCCCTATTGTGGAAGAAGATGATGAAATAAATCGAGATTGGTTGGATTGGACCT
ATTCAGCAGCTACATTTTCTGTTTTTCTCAGTATCCTCTACTTCTACTCCTCCCTGAGCAGATTCTCATGGTCA
TGGGGGCCACCGTTGTTATGTACCTGCATCACGTTGGGTGGTTTCCATTTAGACCGAGGCCGGTTCAGAACTTCC
CAAATGATGGTCCTCCTCCTGACGTTGTAAATCAGGACCCCAACAATAACTTACAGGAAGGCACTGATCCTGAAA
CTGAAGACCCCAACACCTCCCTCCAGACAGGGATGTACTAGATGGCGAGCAGACCAGCCCCTCCTTTATGAGCA
CAGCATGGCTTGCTTTCAAGACTTTCTTTGCCTCTCTTCTTCCAGAAGGCCCCCAGCCATCGCAAACTGATGGT
GTTTGTGCTGTAGCTGTTGGAGGCTTTGACAGGAATGGACTGGATCACCTGACTCCAGCTAGATTGCCTCTCCTG
GACATGGCAATGATGAGTTTTTAAAAAACAGTGTGGATGATGATATGCTTTTGTGAGCAAGCAAAAGCAGAAACG
TGAAGCCGTGATACAAATTGGTGAACAAAAAATGCCCAAGGCTTCTCATGTCTTTATTCTGAAGAGCTTTAATAT
ATACTCTATGTAGTTTAATAAGCACTGTACGTAGAAGGCCTTAGGTGTTGCATGTCTATGCTTGAGGAACTTTTT
CAAATGTGTGTGCTGCTGATGTGTGTTTGTACATAGAAGTCATAGATGCAGAAGTGGTTCTGCTGGTACGATTTGA
TTCTGTTGGAATGTTTAAATTACACTAAGTGTACTACTTTATATAATCAATGAAATTGCTAGACATGTTTTAGC
AGGACTTTTCTAGGAAAGACTTATGTATAATTGCTTTTTTAAATGCAGTGCTTTACTTTAACTAAGGGGAACCTT
TGCGGAGGTGAAAACCTTTGCTGGGTTTTCTGTTCAATAAAGTTTTACTATGAATGACCCTGAAAAAAAAAAAAA
AAAAAAAAA

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FIGURE 4531

MESETEPEPVTL LVKSPNQRRDLELSGDRGWSVGHLKAHL SRVYPERPRPEDQRLIYSGKLLLDHQCLRDLLPK
QEKRHVLHLVCNVKSPSKMPEINAKVAESTE EPAGSNRGQYPEDSSSDGLRQREVLRLNLSSPGWENISRPEAAQQ
AFQGLGPGFSGYTPYGWLQLSWFQQIYARQYYMQYLAATAASGAFVPPPSAQEIPVVSAPAPAPIHNQFPAENQP
ANQNAA PQVVNPGANQNLRMNAQGGPIVEEDDEINRDWLDWTYSAATFSVFLSILYFYSSLRFLMVMGATVVM
YLHHVGWFFFRPRPVQNFPNDGPPPDVVNQDPNNNLQEGTDPETEDPNHLPPDRDVLDGEQTSPSFMSTAWLVFK
TFFASLLPEGPPAIAN

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FIGURE 4532

CCCGAGCGGCTGGGAGCGCACGCGAGCGGGCCGTGGCCGCGCGGGCAGCGCCCTGAGCCTGTCCCGCGCCCGCGG
GCCCGGCCGAGCAGGAGCAGCTCCCGGGGATGCCCGGGCGGGCTCGGAGCGCGGGCAGCGGCAGCCGTGCGGTGAG
GGCGGTGGCGCCCGCGGGACCTGCGACTGCCAGGAACCTCCTGCCACCGCCACCGGCTCCCATGGCCACATACCC
AGTGGGGGTGCCCCAGCAGCGGGGGCAGCCCCCATGGGCCCCCAGTATTGCGTGTGCAAGGTGGAGCTGTCAGTG
AGTGGCCAGAACCTACTGGACCGGGATGTTACCTCCAAGTCCGACCCCTTCTGTGTCCTCTTTACAGAGAACAAT
GGCAGATGGATCGAGTACGACAGGACAGAAACCGCGATCAACAACCTCAACCCCGCCTTCTCCAAGAAGTTCGTG
CTTGACTACCACTTCGAGGAGGTACAGAAGCTCAAGTTTCGCGCTCTTTGACCAGGACAAGTCCAGTATGCGGCTG
GACGAGCATGACTTCCTGGGCCAGTTCTCCTGCAGCCTGGGCACGATCGTCTCCAGCAAGAAGATCACTAGGCCT
CTGCTGCTGCTGAATGACAAGCCTGCGGGGAAGGGCTTGATTACGATCGCTGCCAGGAGCTGTCCGACAACCGC
GTCATCACACTAAGCCTGGCGGGCAGGAGGCTGGACAAGAAGGACCTCTTTGGGAAGTCAGACCCCTTTCTGGAG
TTTTATAAGCCAGGAGACGATGGCAAGTGGATGCTGGTCCACAGGACTGAGGTGATCAAGTACACACTGGACCCCT
GTGTGGAAGCCATTACAGTGCCCTTGGTGTCCCTGTGTGATGGGGACATGGAGAAGCCCATCCAGGTATGTGC
TACGACTATGACAATGACGGGGGCCATGACTTCATCGGCGAGTTCCAGACCTCAGTGTACAGATGTGTGAGGCT
CGAGACAGCGTCCCGCTGGAGTTCGAGTGCATCAACCCCAAGAAGCAGAGGAAGAAGAAGAACTATAAAAACTCG
GGCATCATCATCCTGCGATCCTGCAAGATAAACCGAGACTACTCCTTCCTTGACTACATCCTGGGAGGCTGCCAG
CTCATGTTACCGTTGGAATAGACTTTACAGCCTCCAACGGGAATCCCTTCGACCCCTTCCTCTTTGCACTATATC
AACCTATGGGCACCAACGAATATCTGTGCGCCATCTGGGCTGTTGGGCAGATCATTAGGACTACGACAGTGAT
AAGATGTTTCCAGCTCTGGGATTCGGGGCCAGTTACCCCGAGCTGGAAGGTCTCCCATGAGTTTGCCATCAAC
TTCAACCCCAACCAACCCCTTCTGCTCAGGTGTGGATGGTATTGCCAGGCGTACTCAGCTTGCCCTGCCCCACATC
CGCTTCTACGGTCTTACCAATTTCTCCCCCATCGTCAACCACGTGGCCCGGTTTGCGGGCCAGGCCACACAACAG
CGGACGGCCACGCAGTACTTCATCCTCCTCATCATCACGGACGGGGTCATCAGTGACATGGAGGAGACACGGCAT
GCCGTGGTGCAGGCTTCCAAGCTGCCCATGTCCATCATCATCGTGGGCGTGGGCAATGCGGACTTCGCTGCCATG
GAGTTCCTGGATGGGGACAGCCGATGCTGCGCTCCCACACGGGGGAGGAGGCAGCCCGCGATATTGTGCAGTTC
GTTCCCTTTTCGAGAGTTCCGCAACGCAGCAAAAGAGACCTTGGCCAAAGCTGTGCTGGCGGAGCTGCCCCAACAA
GTTGTGCAGTATTTCAAGCATAAAAACTGCCCCCAACCACTCGGAGCCCGCCTGAGCTCCAGTGCCCAGCAGC
AGCATGTCAGCTGAGCCTCCTGCCCTCCCCCAGGAACATGCACGCTCACTCTGCTTCCTTGTTGGGTGGCCTTTTT
TTACCGATCCCCCTTTTTATTTTTTACAACCGGACCTCCACCCCAACTTCCTCCAGCCAGCTGGGCTTCCTTT
GTTGGAGTCAACTGTTGATGCTTCCAGGCCAAACTGGCTTCCTCTCCTCCTCCTCCACCTTTGCCATTCTTAAG
TATTGAATGTACTTTGTATAATTTTAGTGGAATTGTTATTGAGAATAAAATTTTTACAATCAT

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FIGURE 4533

MRLDEHDFLGQFSCSLGTIVSSKKITRPLLLLNDKPAGKGLITIAAQELSDNRVITLSLAGRRLDKKDLFGKSDP
FLEFYKPGDDGKWMLVHRTEVIKYTLDPVWKPFTVPLVSLCDGDMEKPIQVMCYDYDNDGGHDFIGEFQTSVSQM
CEARDSVPLEFECINPKKQRKKKNYKNSGIIILRSCKINRDYSFLDYILGGCQLMFTVGIDFTASNGNPLDPSSL
HYINPMGTNEYLSAIWAVGQIIQDYDSDKMFPALGFGAQLPPDWKVSHEFAINFNPTNPFCSGVDGIAQAYSACL
PHIRFYGPTNFSPIVNHVARFAAQATQORTATQYFILLIITDGVISDMEETRHAVVQASKLPMSIIIVGVGNADF
AAMEFLDGDSRMLRSHTGEEAARDIVQFVPPREFRNAKETLAKAVLAELPQQVVQYFKHKNLPPTNSEPA

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FIGURE 4534

CGGTGGCGCCGCGCAGTCACCGCGGAGCAGACGCGGAGGCTGGTGGCCCCCTGGGCGAGATGCCGTACGCCAACCA
GCCTACCGTGCGGATCACGGAGCTCACTGACGAGAATGTCAAGTTCATCATCGAGAACACCGACCTGGCGGTGGC
CAATTCGATTTCGGAGGGTCTTCATCGCTGAGGTTCCCATATAAGCCATTGACTGGGTTTCAGATTGATGCCAATTC
CTCAGTTCTTCATGATGAATTCATTGCTCACAGGCTTGGATTAAATCCCCCTCATTAGTGATGACATTGTGGACAA
GCTGCAGTACTCTCGGGACTGCACATGTGAGGAGTTCTGCCCCGAGTGCTCGGTGGAGTTACCCCTCGATGTGCG
GTGCAATGAAGACCAGACGCGACATGTACGTCTCGAGACCTCATCTCCAACAGCCCCCGGGTCATTCCGGTGAC
ATCCCGGAACCGAGATAATGACCCCAATGACTACGTGGAGCAGGATGACATCCTCATCGTCAAGTTGAGAAAGGG
CCAGGAGCTGAGACTTCGAGCCTATGCCAAAAAGGGCTTTGGCAAGGAGCATGCCAAGTGGAACCCCTACTGCAGG
GGTGGCTTTTGAATACGATCCAGACAATGCCCTGAGGCACACAGTGTACCCCAAGCCCGAGGAATGGCCAAAGAG
TGAGTACTCGGAGCTGGATGAGGATGAGTCGCAGGCTCCCTATGACCCCAACGGCAAGCCAGAAAGGTTTTACTA
CAATGTGGAGTCCGTGTGGCTCTCTGCGTCTGAAACCATTTGTCTGTGAGCCCTCTCAGGATTGAAGAAGAACT
GAGTGATTTACAACTCAATTAAGCCACGAGATCCAGAGTGATGTGCTAACCATAAAATTAAGTGCAGCTTGCCCTG
CTTCAGCAAAAACGGAGATTTCAGGCCAGCAGCTGGATATGGGGGTCTCTCTTCAGACTCTTCTCGTTTCTGAGAA
TCTAGTCTACTGTTGGTTGAGCTTCTTGGCAGGACATCAGTACCAACTAGAAGTGGGTTCATAGATAGATTACCAG
GGATGCAGTGGTGTGTTAGGCAGGATAGGTCTTTACTGGCCCTGACTGCTGTTAATAATTGGCAGCAGTGCTCCCC
AGATCCCAGAAGGTCCCTGCTGGAGTGTTCAGTGACCTGTAGGGAACCAACTAGACTTCTCTCCTGGTTAGT
CCAGCTCTTTACTCTAAACCCCTTCTGTCCAAAATGAGTCATTTTCAGTTGTACCTTAGATGTCTGGTGTGAGG
ATCAAGTGCCATAGCCTTTATTTCAGGGGGCCTATAAACCCCTTCAGTTCTTGCCCCAGGGCTGGCCTGCTAGCGC
TTCAAATTCCCAGGTGTCCCTAATTTGAGAAGTAACCTTTTGGAAATAGCATTAGACCCTGGCTGTCCCCTCCCCA
CCAAATAAACATGATATTTCAATCTCTGTCCAGCAGTCATGAACCCCTTCACCTCCAATGACCTGATCATTTAGT
TTGGTGGGGGTGGGGGTGGGGGTGGGGGTGGAAGCAGCCGAGGAGCAAGGGCCCCCTCCACATACACAGGAGGA
GTATTTCAATTTCTCCTTAATGAAGGCTCTGGCCCTAACCCCTCAGCACTGTCTCCAGATAGGAACATGCACAAAG
CAGTTAATTAGGCAGCCTGGAGAAAACAGAGATCCAGTACAGAAAGGAAAGGATATTTATTGATTAAACAGAAGT
TGTCTTTTTTAAAAGTGTGTTATTTTGGCAATAAAGAGCACAAACAT

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FIGURE 4535

CCCGGCGCCGCCGCCGCCCTGCCGCCCCGCCAGCCGCGCCGTGACGCGGGCATGAGCCTGCTCCGCGGCGCCGC
TGAGCAGGCGCTCCTGGCCCCGGGCTCGGCGCCAGCAGGCGCGGGGCGAAGGAGCTGCTAGAACAATGCTGAGG
CGGGTGAGGTGAGGAGCAGCCCCCTCGCGGCAGCCCCGACAGAGTGTCTGGAACAGGTGATTGGAGGAGCCGGAGA
CCCAGGCACCTGGGCATCCTTCCCCTCGCCTCTGCCAGGCCCCGCGCCCCCTAAAAGGTGGGAAAACCATGGCGAC
CAATTTTCAGTGACATCGTCAAGCAAGGCTACGTGAAGATGAAGAGCAGGAAGCTCGGGATCTACCGGAGGTGCTG
GCTGGTGTTCCGGAATCCTCCAGCAAGGGGCCCCAGCGGCTGGAGAAGTATCCAGATGAGAAGTCGGTGTCCT
CCGGGGCTGCCCCAAGGTGACTGAGATCAGCAACGTCAAGTGTGTTACGCGGCTCCCCAAGGAGACCAAGCGGCA
GGCGGTGGCCATCATATTCACTGATGACTCGGCACGTACCTTACCTGCGACTCAGAGCTAGAGGCAGAGGAGTG
GTACAAGACACTATCTGTGGAGTGTCTGGGGTCCCGCCTCAACGACATCAGTCTGGGAGAACCTGACCTCCTGGC
CCCAGGGGTGCAGTGTGAACAGACAGATCGCTTCAATGTCTTCTGCTGCCCTGCCCAACCTGGACGTGTATGG
CGAGTGCAAGCTGCAGATCACCCACGAGAATCTACCTCTGGGACATCCACAACCCCCGTGTGAAGCTCGTCTC
GTGGCCCCCTCTGCTCACTGCGCCGCTATGGCCGGGATGCCACACGCTTTACCTTCGAGGCTGGCCGGATGTGTGA
TGCTGGGGAAGGACTCTATACCTTCCAGACACAAGAGGGGGAGCAGATTTACCAGCGCTCCACAGTGCCACCCCT
GGCCATCGCAGAGCAGCACAAGCGGGTCTGCTGGAATGGAGAAGAACGTGAGGCTGCTGAACAAGGGCACGGA
ACATTACTCGTATCCCTGCACACCCACGACCATGCTGCCGCGCAGTGCCTACTGGCACCACATCACTGGTTCCCCA
GAACATCGCCGAAGCCTCCAGCTATGCTGGTGAGGGGTATGGGGCAGCCAGGCCAGCTCGGAAACAGACCTCCT
CAACAGATTTCATCCTGCTAAAGCCAAAGCCCAGCCAGGGGGACAGCAGTGAGGCCAAGACCCCATCCCAGTGACC
ACAGTGCTGGCGAGCACCGATGACTGCTGGGGGCTGCCTGCTGCGGGGCTGGCTGCAGTGTACCGTGAGCAGCCT
CAGGGGGCTGTGCGCCAAGAGCCTGGAGAAAGGGAGCAAGCTGCCCCCTCCTTGCCCCCAAGGATGAGGCTGGAC
TGAGGCAAGGGCTGGCCACACCACCTGAGCATGTGTGAGGGGTGGAGCTACCGTGGGACTATATACTGTTAAT
GATTTTAATATATATGGCTTATGACATACTCTGTATCAATGAGATCCCCTCACCTCACCCATCCTTCCCCACC
AATACACACAAATTTTTTAATCCCATGACCAGGCCACGGTCAAGGCTGTTTTTGAGTATGAGTGCAGTCGTGTCC
ATCCTCCATGGCACAGCCCTCCTGCTGCCAGGACCTGCTTGAACCTACCAGGGCCACAGGAGGGGGATAATCAGAG
CTTGAGGCTGGCAGCTCTGACTGCTGGCTTTTCCCAAACAGCCCAAGGGCCGGAACAGCAGGTGGCTTCTCAGTTC
CTCTGGGCCTGGAGTGACACAGGAAGGATCTGCACTTCTCTGTGCTGCTTGCCAGCCTTGCAATTGGAGTTT
AGCAGAGGTGACATCTGGTTGACGCCTCAGGTGAAATCTGGTTTTTAAATGTAACCTTGCACAGGCTCCTTCC
TGCTTTGTAGGCTGGGAAGATGCCCCTGGGGTAGGGGTGCTGATTACCTCAGCCATGTGGAGGAAGGCTGGAGCT
TGTTCTCTGCCCCAGGAATAGGCCAGGAGGGAAGGCCGAGCAGGACTGCCGTGGGGAGCACCCCTGCTGCCCCC
TCTCACTGACCAGGGGTGGACAATGCCCAAGCAGAGGGAGCCCCCTTGCCCTGTTTGCCACCCTCTGGCCAGCC
AAAAGCACTCTGAAACCAAGACCTTCCCATTCTCCTCCCCACATGGTGCTGAGGCTCCCTGCTGCAATGCAATT
AAAGCAATTGATTTTTCTAGTGCTGGTATTTGTTGACTACCATGCAGAAGGGCTATCTTTCTATTACGTCAAAC
TTTGTTGTGTGGGTTTTTTTGTGTTTTTTGGGTTTTGTTTTTAATACCTTAGGGTCTGATTTGTGGGAACA
GACCTTCTTGTAATAACCACTATTTGAGTTGTGGCAGGAGGATGATAAAGCACGCGGCCCTCCCAAAGGAGCC
CTTGAGCTAGGGAGGTGGTGAGTCAGCCTCGCTCTCAACGTGACCCGGGGAATGACCACCCAGAGGGATGAGCT
AGCCTGTAGAGGGGAAGTGGGGTCCAAAGGTCTTTGGGGAGGGAGGCAGAGCTGGCTGGCTCAGCTAAGTGGCAC
GATGACGCATGAAGGAGATTATGTTGTGCTCTTTATTGCCAAAAATAAACACTTTTAAAAAGAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4536

MATNFSDIVKQGYVKMKSRKLGIIYRRCWLVFRKSSSKGPQRLEKYPDEKSVCLRGCPKVTEISNVKCVTRLPKET
KRQAVAIIFTDDSAFTFTCDSELEAEWYKTLSECLGSRNLNDISLGEPLDAPGVQCEQTDRFNVFLLPCPNLD
VYGECKLQITHENIYLWDIHNPRVKLVSWPLCSLRRYGRDATRFTFEAGRMCDAGEGLYTFQTQEGEQIYQRVHS
ATLAIAEQHKRVLLEMEKNVRLLNKGTEHYSYPCTPTTMLPR SAYWHITGSQNIAEASSYAGEGYGAAQASSET
DLLNRFILLKPKPSQGDSEAKTPSQ

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FIGURE 4537

ATTTTGTGGGTGGGGCTTCAGGTGCCAGCCAGCTGAAGGATGGCCACCCCTGTGGTCACCAAGACAGCCTGGAAG
TTGCAAGAGATCGTCGCGCATGCCAGCAACGTGTCTCACTGGTGCTGGGCAAAGCCTCCGGGCGGCTGCTGGCT
ACAGGCGGGGATGACTGCCGCGTCAACCTGTGGTCCATCAACAAGCCCACTGCATCATGAGCCTGACGGGGCCAC
ACATCCCCAGTGGAGAGCGTCCGCTCAACACCCCCGAGGAGCTCATCGTGGCCGGCTCTCAGTCGGGCTCCATC
CGTGTCTGGGACCTGGAAGCTGCCAAAATTCTTCGCACACTCATGGGACACAAAGCCAACATCTGCAGCCTGGAT
TTCCACCCGTACGGCGAGTTTGTAGCCTCTGGTTCCCAGGACACAAACATCAAGCTCTGGGACATCAGGAGGAAA
GGCTGTGTCTTCCGATACAGGGGGCACAGCCAGGCCGTGCGGTGTCTCCGGTTCAGCCCCGATGGGAAGTGGTTG
GCGTCGGCCGAGATGACCACACCGTGAAGCTCTGGGATCTCACTGCCGGCAAGATGATGTCTGAGTTCCCTGGT
CACACGGGGCTGTCAACGTGGTTCGAGTTTACCCCCAACGAGTACCTCCTGGCCTCCGGCAGCTCTGACAGGACA
ATCCGCTTCTGGGACCTGGAGAAGTTCCAGGTGGTGTGAGCTGCATCGAAGGGGAGCCTGGGCCCGTCCAGGAGCGTC
CTCTTCAACCCAGACGGCTGCTGCCTGTACAGCGGCTGCCAGGACTCACTGCGTGTCTACGGCTGGGAACCTGAG
CGGTGCTTTGATGTGGTCTCTGTCACCTGAGGGAAGGTGGCCGACCTGGCCATCTGCAATGACCAGTTGATAGGT
GTGGCCTTCTCCCAGAGCAACGTCTCCTCCTACGTGGTGGATCTGACGCGTGTACCAGGACTGGCACGGTGGCC
CGGGACCCCTGTGCAGGACCACCGGCCCTGGCACAGCCACTGCCCAACCCAGCGCCCCCTCCGGCGCATCTAT
GAGCGGCCCAGCACAACTGCAGCAAGCCTCAGAGGGTGAAGCAGAAGTCAAGAGAGCGAGCGCCGAGCCCCAGC
AGCGAGGATGACCGGGACGAGCGCGAGTCCGCGCGGAGATCCAGAAGCGCGAGGACTACAACGAGATCTTCCAG
CCCAAGAAGCAGCATCAGTCGGACGCCACCCCGGAGAAGTGAGCCCTTCCCTGCACCCCGAGAGGACGACGCAGCC
ACAGCAAAGGAGGCAGCAAAGCCAGCCCTGCCATGGATGTGCAGTTCCCGGTGCCAAATCTGGAGGTCTTGCCC
CGGCCCCCAGTGGTTGCTTCCACACCTGCACCCAAGGCTGAGCCTGCCATCATCCCTGCCACCCGGAACGAGCCC
ATCGGGCTGAAGGCCTCCGACTTCTTCCCCGCGGTGAAGATCCCCCAGCAGGCGGAGCTGGTGGACGAGGATGCC
ATGTACAGATCCGCAAAGGCCACGACACCATGTGTGTGGTGTCTACCAGCCGCCACAAGAACCTGGACACTGTG
CGGGCTGTGTGGACCATGGGCGACATCAAGACGTGGTGGACTCCGCTGTGGCCATCAACGACCTGTGCGTGGTG
GTGGACCTCCTGAACATCGTCAACCAGAAAGCCTCCCTGTGGAAGCTGGACCTGTGCACCACCGTCTGCCACAG
ATTGAGAAGCTTCTGCAGAGCAAGTATGAGAGCTACGTCCAGACGGGCTGCACCTCCCTGAAGCTGATCCTGCAG
CGGTTTCTGCCCCCTCATCACAGACATGCTGGCGGCCCCACCCTCTGTGGGTGTGGATATCAGCAGGGAGGAGAGG
CTGCATAAGTGCCGGCTCTGCTACAAGCAGCTTAAGAGCATCAGCGGCCTGGTCAAGAGCAAGTCAGGCCTGAGC
GGCCGCCATGGCAGTACCTTCCGCGAGCTGCACCTGCTCATGGCCAGTCTGGACTGAGGAAAGCAGTGGGCAGGG
GCGCTCGGCAGCCACAGGGCCTGGCCTCAGCCCCACTCCTGTTCTTGTGCACCCACTGGCCCATGAGCCTCT
GCCTGGCCCCCTGTGCTGTCTGTGGCCGTCTTGAGGAGGTGATGCTGGTCCCTGGCCACTCTACAGCCCTGA
ACTCTTGAGACAACTCTCTCCAGCAATAGCTGCCAGCTTTGCCCAACTGTGCTTCTTGGGGCAGCGAACTGAG
CCCTGGGGCTGCTGCTGTAATTTATAAGGCAAATTTTATTAAATTTGTAACCTATT

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GAGGCGCGCTTCCGGCACAGCGGAACTCCGGGTGCCGGTTGAGGTTGCTGGTGGACCTGCTCTGGTGGTCTTGGAT
GAGGCCCATGAGCGCGGCGCCCCCTGGTGGGCTACAGCAGCAGCGGCTCCGAGGATGAGTCCGAGGACGGGATGC
GGACCAGGCGCGGGGATGGGAGCCACCGTCTGTGGCCAGAGCCCCCTTCCAGGCAGAGATTTCCAGTACCTGACA
GTGTGCTGAACATGTTCCCGGGCACCGAGGAGGGGCCCTGAAGATGACAGCACAAAACACGGGGGACGGGTGCGCA
CCTTCCCCCACGAGCGAGGCAACTGGGCCACCCACGTCTATGTACCATATGAAGCCAAGGAGGAGTTCTTGGATC
TGCTTGATGTGTTGCTGCCCCATGCCAGACATATGTCCCCGGCTGGTAAGGATGAAGGTGTTCCACCTCAGCC
TGTCACAGAGTGTGGTTCTGCGCCACCCTGGATCCTCCCTTCGTGCAGGCTCTGAAAGCCCGTATGACCTCCT
TCCACAGATTCTTCTTTACTGCCAACCCAGGTAAGATTACACCAATCAAGAGAAAACCAGGACCTTTATTGGGC
TTGAGGTCACCTCAGGGCATGCCAGTTCTTGGACCTGGTTTCAGAGGTGGACAGAGTCATGGAGGAATCAACC
TCACCACTTTCTACCAGGATCCTTCTTTCCACCTCAGCCTGGCCTGGTGTGTGGGTGATGCACGTCTCCAGCTGG
AGGGGCAGTGCCTGCAGGAACTACAGGCAATCGTGGATGGGTTTGAAGATGCTGAGGTGCTGCTGCGCGTGCACA
CTGAGCAAAGTCCGCTGCAAGTCTGGGAACAAGTTCTTCTCGATGCCTTTGAAGTGAGCACCAGAGGCCTTCTCC
TCCAGGGCCCTCTGCAGACCAGGCTGAGATGGAGGAACCTGCTAAAATCGATGGAGATGCTTCTAGCCTCCCAGT
AGGAGGCCCCAGCCATGCCTTCAACCTGGCAGGAGGTGTAGCCACTCCTCATCCTCCCTGAGTGCTGATATTCTC
TCTCTCTCTTTCTCTTCTCTTCTTTCTCTCTCTTCTCCTCTCTTTCTCTCCTCTGGCTCTCTTCTCTCCTCTC
TTCTCTCTTCTCTCTTCTCTCTCTCTCTCTCTTCTCTCTCTTTCCCTCCGTCTCTCTCTCTCTCTCTCTCTC
TCTATCTCTCCTCTCTCTTACTCTCCTCTCTCTAACCCTCCTGGCTTTCTTGCCCTCCTCTCTCTTCTCTCTC
ATCTCTCTTCTCTCTCTCTCTTCCCTTCTGTCTCTTCCCTCCTCTCTCTCTTCTCTCTTCTGTCTCTATCTCTT
CCCCCTCTCTATCTCTTCT
TCGGCTGTTGTGGGTTGCAGGTTGGGTGCTGCTGTTGTGGTCTTCCAGAACTGCCAGTAGAGGGCAGCCTGG
GCATCCTAATGCTTACTCTGGTTGTTACACAAAGAAAATATTGGGGTCACTGGCGAGCCCACCCACACTCACCAG
AATCTCCACTGTAGTCCCCCTAACAAACAGCCCTTCACTTCTCTCCCACTTACAGCAATTTGTATTTTGATGCCA
TTGGCCTCAGATCAGAGTGTTTTAAATCATCACGCCCTGGCTTATCCCTGGTCGAGCCAGGACACGGGGTGCTTC
AGTGGGTCTGTCAACCCTCTCTCCTTGAAGCATGTTGCTTTTATTTATTTACTTTTACTCTCACCCTGCTCCTGTA
CCAGCAGGGGGCCACTTCAAAGCCAAGGTACAGGGTGATAACTTGTGGTCCAGCATCAGTTTTCTCCACTTCTTTT
TCCACTCACCCTCCAGCAAGGTGCCCTGGGGAGACTTGAGCAGATGTTTCATTTGGCCTGGCCAGTGGCTGAAAG
CAGGCCCTCCAATGCACGTGTGACCTCTGGCTTCCCCAGAGCATTTCAGAGAGAGGCAGAGGGGCTTCCACAGCC
CGGGTTCTCCTGCTGCCCTCCTGCCTGCTGCAGCTGCAGGCATTCTGAGGGGCAACGTGGAGGAAGGGCCAGGGAT
GCATGGGATTTTAAATGTGTTTCACTCACACCTTCCCCGTGGCAAAGAAACAGTCAGTCCTCTTCAGGTGTCTTCTGG
ATTTCTGGTGATGGACAGAGAAATCTTTTTACAGTTTCAAATTATGTTCAACAAATAAAATTGCATTTTTT

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FIGURE 4539

CCGCTTCCCCGTCTTGTAACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG
TGGCCGCCATGTCAGAGGCTTATTTCCGAGTGAGATCGGGTGCCTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG
ACGACATCCTGATGTCCCACGAGAAAGCTGCCGGTGCGCACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCCACAGGGTTCCAAGCTTGAAGTACCTTGTGGCTGG
CAAAAGGACTTTTGTACAACAAGCGACGGATCCTTTCTGTGGAATCCCCAAGATCTACCAAGAGGGTTGGAGGA
CTGTGTTCAAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC
TCTGCAATTTGACAGTCCCAGAAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTTCGCC
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTCAAGTGTGGGAGAAGGGGCAGGCTTCTCAGATCA
CAGCTTCCAACCTCGTTTCAAGATTACAAGAAGAGAAAATTCAGTGATATGGAAGACTGAAAGCCGGAAGAACACA
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGTCTTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC
TGTCCCATTTTATGGCTTATTTCTGTGGCCATAGAGAATTATAGGGAACTGGACATGCTGGAGGATGTGGGTGT
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCCACCTGCTGACCCACAGCCCAGGCCCTTTAACCAAGAACCCA
TGGCCAAGGAGAAATCAAAGTCTTCTTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAACTG
GGTCATCGCCTGTTTCAAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCTCATGGTTGTACAGAGGATAGCA
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAAACA
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC
TGAGCTTGTTATTGCCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAATGGGCAAGAAGCCTCCGTTGTG
CTTTTTTTTTCTCTTTCAGTAACCTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT
TAAGCAAGCACTAATCTCTTTTCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAAGAAACAGGGTTCCCTGGG
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACCTAGCAAAAATTTGCTTTTGTCTTTG
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTTATAATTTGATTTTAGTGCTAAATAAATG
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTCTACTAGTACTACAGATAATCAAAGCTATCAGAAT
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAA
A

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FIGURE 4540

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPOGSKLELPLWLAKG
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLQLTFIGRFRRIM
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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FIGURE 4541

GGTCCACCATGGCCCTGCTGCACTCCGGCCGCGTCCTCCCCGGGGATCGCCGCCGCCCTTCCACCCGGGCCTCGCCG
CCGCGGCCCTCTGCCAGAGCCAGCTCCTGGTGGACCCATGTGGAAATGGGACCTCCAGATCCCATTCTGGGAGTCA
CTGAAGCCTTTAAGAGGGACACCAATAGCAAAAAGATGAATCTGGGAGTTGGTGCTACCGGGATGATAATGGAA
AGCCTTACGTTCTGCCTAGCGTCCGCAAGGCAGAGGCCAGATTGCCGCAAAAAATTTGGACAAGGAATACCTGC
CCATTGGGGGACTGGCTGAATTTTGAAGGCATCTGCAGAACTAGCCCTGGGTGAGAACAGCGAAGTCTTGAAGA
GTGGCCGGTTTGTCACTGTGCAGACCATTCTGGAACTGGAGCCTTAAGGATCGGAGCCAGTTTTCTGCAAAGAT
TTTTTAAGTTTACGCCGAGATGTCTTTCTGCCCAAACCAACCTGGGGAAACCACACACCCATCTTCAGGGATGCTG
GCATGCAGCTACAAGGTTATCGGTATTATGACCCCAAGACTTGCAGTTTGTACTTCACAGGCGCTGTGGAGGATA
TTTCAAAAATACCAGAGCAGAGTGTTCTTCTTCTGCATGCCTGCGCCCAATCCACGGGAGTGGACCCGCGTC
CGGAACAGTGGAAGGAAATAGCAACAGTGGTGAAGAAAAGGAATCTCTTTGCGTTCTTTGACATGGCCTACCAAG
GCTTTGCCAGTGGTGATGGTGATAAGGATGCCGGGCTGTGCGCCACTTCATCGAACAGGGCATTAAATGTTTGCC
TCTGCCAATCATATGCCAAGAACATGGGCTTATATGGTGAGCGTGTAGGAGCCTTCACTATGGTCTGCAAAGATG
CGGATGAAGCCAAAAGGGTAGAGTCACAGTTGAAGATCTTGATCCGTCCCATGTATTCCAACCTCCCCCTCAATG
GGGCCCGGATTGCTGCTGCCATTCTGAACACCCAGATTTCGCAAAAACATGGCTGCAAGAAGTGAAAGTCATGG
CTGACCGCATCATTGGCATGCGGACTCAACTGGTCTCCAACCTCAAGAAGGAGGGTTCCACCCACAATTGGCAAC
ACATCACCGACCAAATTGGCATGTTCTGTCTTACAGGGCTAAAGCCTGAACAGGTGGAGCGGCTGATCAAGGAGT
TCTCCATCTACATGACAAAAGATGGCCGCATCTCTGTGGCAGGGGTACCTCCAGCAACGTGGGCTACCTTGCCC
ATGCCATTACACAGGTACCAAGTAAATGTCCTTGGTGCGAGGAAACAGAGACAACCTTTCTGTCTTCAGCCTCTG
CTATTGAGAGCTTCACACAGACAATGAGAGAGGGTGGATGGTGGTGAGTGGATCATTCTTTTCAGCCACAGTGTG
TAACACTCAGCATTGGAATGTTTCTCAGAAAAGAACATGTAGTGACACAGGGCAGAGGCATCCATGGCTGGCGTC
TGGAATATTAAACCAAACCTCTCCCCGGTCCTTTTTCTCCAACTTTTCTCAAAGAGTTTACATGTGCAAGAAAGT
CATCGCACCAAAAAACCTGTCAATTATGCCATTGCAATATTTCAGAAGCTTTAACTGAAGTGTGAGGTTCCCTCGT
GAGAAACAGCACACGTTAGAGGCTTTGAGAGAAGGCCTAGTTCTGTGATGAGTAGTCGGCCTCGTGCTGTCTCTC
CCATCTTGGAAACAACCTTATCAACAGGCCGCACTGCAGAAATGATGTTTTATGAAAACCAATGAGGCTGCTGCCA
CTCCAGCAAGGGAAATAATGCAGTTTCCCTGTCTTATTTAAGAAAAAGAGAAGGCTCTCTTTTCTCCCTTGTCTATT
GCCGTTCTTTTCTTACACGCAAAAGATTTTTTAACTATTGCAGATTTTCATCCCATCTACTGCTTGATTGACCA
TCAACTCCATCCTATCGAGATTTATTTAAGAATGAAGAACATAATTTTCTGCTGATGCTGTACCCCTACCCTTTT
CAGCAAAGAATAGTGGAGAGTAGGAACTGTACTTTATCTCGGCATCCTCTTGAATGATAGTGCAAGTTTCTCCA
GTTGGGATGTTGTCTCTGCCCGGTTGGACCTCTCCCTTTGTTGAATGTGGTGTGCAGCCTCTCATCTCACACTG
TGAGTCCAGCGCGCAGGGTGGTACCAGGAAAGAGGATATTCTAGGCTTTGCGTGCTGCTAGCTGGGTTACAGGCT
TCACCCACTGGAAGAACCACCATCTGCTCTAACCATGTAGACTTATTGCGGCCTGGTTTTCTCTGTTACAATAAA
ATTACTGTAGACCC

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FIGURE 4542

MALLHSGRVLPGIAAAFHPGLAAAASARASSWTHVEMGPPDPILGVTEAFKRDTNSKKMNLGVGAYRDDNGKPY
VLPSVRKAEAQIAAKNLDKEYLPIGGLAEFCKASAEALGENSEVLKSGRFVTVQTISGTGALRIGASFLQRFFK
FSRDVFLPKPTWGNHTPIFRDAGMQLQGYRYYDPKTCGFDFTGAVEDISKIPEQSVLLLHACAHNPTGVDPRPEQ
WKEIATVVKKRNLF AFFDMAYQGFASGDGDKDAWAVRHFIEQGINVCLCQSYAKNMGLYGERVGAF TMVCKDADE
AKRVESQLKILIRPMYSNPPLNGARIAAAI LNTPD LRKQWLQEVKVMADRIIGMRTQLVSNLKEGSTHNWQHIT
DQIGMFCFTGLKPEQVERLIKEFSIYMTKDGRISVAGVTSSNVGYLAHAHQVTK

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FIGURE 4543

ATCTGCAGTGGAGCCGCCACCAAAATGCAGATTTTCGTGAAAACCCCTTACGGGGAAGACCATCACCCCTCGAGGTT
GAACCCTCGGATACGATAGAAAATGTAAAGGCCAAGATCCAGGGTAAGGAAGGAATTCCCTCCTGATCAGCAGAGA
CTGATCTTTGCTGGCAAGCAGCTGGAAGATGGACGTACTTTGTCTGACTACAATATTCAAAGGAGTCTACTCTT
CATCTTGTTGAGACTTCTGGTGGTGCTAAGAAAAGGAAGAAGAAGTCTTACACCACTCCCAAGAAGAATAAGC
ACAAGAGAAAAGAAGGTTAAGCTGGCTGTCCTGAAATACTATAAGGTGGATGAGAATGGCTTTATGGCAAGCCACT
TTGACAGACATTATTGTGGCAAATGTTGTCTGACTTACTGCTTCAACAAACCAGAAGACAAGTAAGTGTATGAGT
TAATAAA

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FIGURE 4544

ATGGCGGACCTTGATTTCGCCTCCGAAGCTGTCAGGGGTGCAGCAGCCGCTCTGAGGGGGTGGGAGGTGGCCGCTGC
TCCGAAATCTCCGCTGAGCTCATTTCGCTCCCTGACAGAGCTGCAGGAGCTGGAGGCTGTATACGAACGGCTCTGC
GGCGAGGAGAAAAGTGGTGGAGAGAGAGCTGGATGCTCTTTTGGAAACAGCAAAACACCATTGAAAGTAAGATGGTC
ACTCTCCACCGAATGGGTCCCTAATCTGCAGCTGATTGAGGGAGATGCAAAGCAGCTGGCTGGAATGATCACCTTT
ACCTGCAACCTGGCTGAGAATGTGTCCAGCAAAGTTTCGTGAGCTTGACCTGGCCAAGAACC GCCTCTATCAGGGC
ATTCAGAGAGCTGATGACATCTTGGACCTGAAGTTCTGCATGGATGGAGTTCAGACTGCTTTGAGGAGTGAAGAT
TATGAGCAGGCTGCAGCACATACTCATCGCTACTTGTGCCTGGACAAGTCGGTCATTGAGCTCAGCCGACAGGGC
AAAGAGGGGAGCATGATTGATGCCAACCTGAAATTGCTGCAGGAAGCTGAGCAACGTCTCAAAGCCATTGTGGCA
GAGAAGTTTGCCATTGCCACCAAGGAAGGTGATCTGCCCCAGGTGGAGCGCTTCTTCAAGATCTTCCCACCTGCTG
GGTTTGCATGAGGAGGGGATTAAGAAAGTTCTCGGAGTACCTTTGCAAGCAGGTGGCCAGTAAAGCTGAGGAGAAT
CTGCTCATGGTGCTGGGGACAGACATGAGTGATCGGAGAGCTGCAGTCATCTTTGCAGATACACTTACTCTTCTG
TTTGAAGGGATTGCCCGCATTGTGGAGACCCACCAGCCAATAGTGGAGACCTATTATGGGCCAGGGAGACTCTAT
ACCCTGATCAAATATCTGCAGGTGGAATGTGACAGACAGGTGGAGAAGGTGGTAGACAAGTTCATCAAGCAAAGG
GACTACCACCAGCAGTTCGGGCATGTTTCAACAACCTGATGAGAAATTCTACAACAGAAAAATCGAACCAAGA
GAACTGGACCCCATCCTGACTGAGGTCAACCTGATGAATGCCCGCAGTGAGCTATACTTACGCTTCCTCAAGAAG
AGGATTAGCTCTGATTTTGGGTGGGAGACTCCATGGCCTCAGAGGAAGTAAAGCAAGAGCACCAGAAGTGTCTG
GACAACTCCTCAATAACTGCCTTTTGGCTGTACCATGCAGGAGCTAATTGGCTTATATGTTACCATGGAGGAG
TACTTCATGAGGGAGACTGTCAATAAGGCTGTGGCTCTGGACACCTATGAGAAGGGCCAGCTGACATCCAGCATG
GTGGATGATGTCTTCTACATTGTTAAGAAGTGCATTGGGCGGGCTCTGTCCAGCTCCAGCATTGACTGTCTCTGT
GCCATGATCAACCTCGCCACCACAGAGCTGGAGTCTGACTTCAGGGATGTTCTGTGTAATAAGCTGCGGATGGGC
TTTCCTGCCACCACCTTCCAGGACATCCAGCGCGGGGTGACAAGTGCCGTGAACATCATGCACAGCAGCCTCCAG
CAAGGCAAAATTTGACACAAAAGGCATCGAGAGTACTGACGAGGCGAAGATGTCCTTCCTGGGACATATTCTGAGT
CACCTGAGCCACGATAGAGGCTGGGCTGTCCAGCTGTACCTAGAATTCAATCCCCAGAGCACTGGCCAGCTGCT
CAGGAGCCCACTGAGTGCCAAGCTTGGCTTGCACTGCCACAGAACCAGCTCTACCATCTGTGCCAGACCACCAG
ACTGCTTCTCTGAGGAGAGGCCCCGAGCATGGGCAGGCGCCAGTCTTCGGGCCTGCCATCACTGCTCTGCTAGT
ACATGTCTTAGGCTTTCAACTTCCTCTGGAAAGGAGGCTTTATTAAAGCCCTTTGCTACCCAGAATGACAGATGT
GATAAAGCAGCAAGCCTTCCATTGTGTGACAGCTTGGAAAGGAGGACACAGAAGGATGA

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FIGURE 4545

GGCACGAGGCAGCGTCAGCTGACCTGGGGAGTCGCGATTTCGTGCCGGCCGGTCCTGGTTCTCCGGTCCC GCCGCT
CCCGCAGCAGCC**ATGT**CGTTCTTTCCCGGAGCTTTACTTTAACGTGGACAATGGCTACTTGGAGGGACTGGTGCGC
GGCCTGAAGGCCGGGGTGCTCAGCCAGGCCGACTACCTCAACCTGGTGCACTGCGAGACGCTAGAGGACTTGAAA
CTGCATCTGCAGAGCACTGATTATGGTAACCTTCCTGGCCAACGAGGCATCACCTCTGACGGTGTCAGTCATCGAT
GACCGGCTCAAGGAGAAGATGGTGGTGGAGTTCCGCCACATGAGGAACCATGCCTATGAGCCACTCGCCAGCTTC
CTAGACTTCATTACTTACAGTTACATGATCGACAACGTGATCCTGCTCATCACAGGCACGCTGCACCAGCGCTCC
ATCGCTGAGCTCGTGCCCAAGTGCCACCCACTAGGCAGCTTCGAGCAGATGGAGGCCGTGAACATTGCTCAGACA
CCTGCTGAGCTCTACAATGCCATTCTGGTGGACACGCCTCTTGCGGCTTTTTTCCAGGACTGCATTTCAGAGCAG
GACCTTGACGAGATGAACATCGAGATCATCCGAACACCCCTCTACAAGGCCTACCTGGAGTCCTTCTACAAGTTC
TGCACCCCTACTGGGCGGGACTACGGCTGATGCCATGTGCCCATCCTGGAGTTTGAAGCAGACCGCCGCGCCTTC
ATCATCACCATCAATTCTTTCGGCACAGAGCTGTCCAAAGAGGACCGTGCCAAGCTCTTTCACACTGTGGGCGG
CTCTACCCTGAGGGCCTGGCGCAGCTGGCTCGGGCTGACGACTATGAACAGGTCAAGAACGTGGCCGATTACTAC
CCGGAGTACAAGCTGCTCTTCGAGGGTGCAAGGTAGCAACCCTGGAGACAAGACGCTGGAGGACCGATTCTTTGAG
CACGAGGTAAAGCTGAACAAGTTGGCCTTCCTGAACCAGTTCACCTTTGGTGTCTTCTATGCCTTCGTGAAGCTC
AAGGAGCAGGAGTGTGCAACATCGTGTGGATCGCTGAATGTATCGCCAGCGCCACCGCGCCAAAATCGACAAC
TACATCCCTATCTTCT**TAG**CGTCTCGGCCAAGGCTCTCAATTGCACTCTTTGTGTGTGTGTGTGTGTGTGTGCGC
GTGTGTGTGCGTGTGTGTGTATGTGGTCTGTGACAAGCCTGTGGCTCACCTGCCTGTCCGGGGTGTAGTACGCTG
TCCTAGCGGCTGCCCAGTTCTCCTGACCCTCTTAGAGACTGTTCTTAGGCCTGAAAAGGGGCTGGGCACCCCCC
CCACCAAGGATGGACGAAGACCCCCCTCCAGAGCAAGGAGGCCCTCAGCCCTGTGGTTACAGCCGCTGATGTAT
CTAAGAAGCATGTCACTTTCATGTTCCCTCCCTAACTCCCTGACCTGAGAACCCTGGGGCCTGGGGCAGTTTGAG
CCTCCTCTCCCTTCTGTGGGTGCTCCCAGAGCCATGGCCCATGGGAAGGACAGAGTGTGTGTGTCTTTGGGGC
TGGGGGGATGTTGCTCCTCAGCTCCCTCCCTCAGCCCTGCCCCCTCTGAGACAATAAACTGCCCTCTCTAAGGCA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4546

MSFFPELYFNVDNGYLEGLVRGLKAGVLSQADYLNLVQCETLEDIKLHLQSTDYGNFLANEASPLTVSVIDDRLK
EKMVVEFRHMRNHAYEPLASFLDFITYSYMIDNVILLITGTLHQRSIAELVPKCHPLGSFEQMEAVNIAQTPAEL
YNAILVDITPLAAFFQDCISEQDLDEMNIETIRNTLYKAYLESFYKFCTLLGGTTADAMCPILEFEADRRAFIITI
NSFGTELSKEDRAKLFPHCGRLYPEGLAQLARADDYEQVKNVADYYPEYKLLFEGAGSNPGDKTLED RFFEHEVK
LNKLAFNLNQFHFGVFYAFVKLKEQE CRNIVWIAECIAQRHRAKIDNYIPIF

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FIGURE 4547

CGCGCCCCAGGCCGGTGTACCCCCGCACTCCGCGCCCCGGCCTAGAAAGCTCTCTCTCCCCGCTCCCCGGCCCCGGC
CCCCGCCCCGCCCCGCCCCAGCCCGCTGGGCGGCCATGGAGCGCTGGCCTTGGCCGTCGGGCGGCGCCTGGCTGC
TCGTGGCTGCCCCGCGCGCTGCTGCAGCTGCTGCGCTCAGACCTGCGTCTGGGCGCCCCGCTGCTGGCGGCGCTGG
CGCTGCTGGCCGCGCTCGACTGGCTGTGCCAGCGCCTGCTGCCCCGCGCGGCCGCACTCGCCGTGCTGGCCGCCG
CCGGCTGGATCGCGTTGTCCCGCCTGGCGCGCCCCGAGCGCCTGCCGGTGGCCACTCGCGCGGTGCTCATACCG
GCTGTGACTCTGGTTTTGGCAAGGAGACGGCCAAGAACTGGACTCCATGGGCTTCACGGTGTGGCCACCGTAT
TGGAGTTGAACAGCCCCGGTGCCATCGAGCTGCGTACCTGCTGCTCCCTCGCCTAAGGCTGCTGCAGATGGACC
TGACCAAACCAGGAGACATTAGCCGCTTGCTAGAGTTACCAAGGCCACACCACCAGCACCGGCCTGTGGGGCC
TCGTCAACAACGCAGGCCACAATGAAGTAGTTGCTGATGCGGAGCTGTCTCCAGTGGCCACTTTCCTAGCTGCA
TGGAGGTGAATTTCTTTGGCGCGCTCGAGCTGACCAAGGGCCTCCTGCCCCTGCTGCGCAGCTCAAGGGGCCGCA
TCGTGACTGTGGGGAGCCCAGCGGGGGACATGCCATATCCGTGCTTGGGGGCCTATGGAACCTCCAAAGCGGCCG
TGGCGCTACTCATGGACACATTCAGCTGTGAACTCCTTCCCTGGGGGGTCAAGGTCAGCATCATCCAGCCTGGCT
GCTTCAAGACAGAGTCAGTGAGAAACGTGGGTGAGTGGGAAAAGCGCAAGCAATTGCTGCTGGCCAACCTGCCTC
AAGAGCTGCTGCAGGCCTACGGCAAGGACTACATCGAGCACTTGCATGGGCAGTTCTGCACTCGCTACGCCTGG
CCATGTCCGACCTCACCCAGTTGTAGATGCCATCACAGATGCGCTGCTGGCAGCTCGGCCCCGCGCGCCTATT
ACCCCGGCCAGGGCCTGGGGCTCATGTACTTCATCCACTACTACCTGCCTGAAGGCCTGCGGCGCCGCTTCTGC
AGGCCTTCTTCATCAGTCACTGTCTGCCTCGAGCACTGCAGCCTGGCCAGCCTGGCACTACCCACCACAGGACG
CAGCCCAGGACCCAAACCTGAGCCCCGGCCCTTCCCCAGCAGTGGCTCGGTGAGCCATGTGCACCTATGGCCCAG
CCACTGCAGCACAGGAGGCTCCGTGAGCCTTGTTTCCTCCCCGAAAACCCCAAGCATTACGATCCCCCAAGTGTC
CTGGACCCTGGCCTAAAGAATCCCACCCCCACTTCATGCCCACTGCCGATGCCCAATCCAGGCCCGGTGAGGCCA
AGGTTTCCCAGTGAGCCTCTGCGCCTCTCCACTGTTTCATGAGCCAAACACCCTCCTGGCACAACGCTCTACCC
TGCAGCTTGGAGAACTCCGCTGGATGGGAGTCTCATGCAAGACTTCACTGCAGCCTTTCACAGGACTCTGCAGAT
AGTGCTCTGCAAACTAAGGAGTGAAGGTGGGTTGGGGACCCCTCAGGATTGTTTCTCGGCACCAAGTGCCCTC
AGTGCTGCAATTGAGGGCTAAATCCCAAGTGCTCTTTGACTGGCTCAAGAATTAGGGCCCCAACTACACACCCCC
AAGCCACAGGGAAGCATGTACTGTACTTCCCAATTGCCACATTTTAAATAAAGACAAATTTTTATTTCTTCTA

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FIGURE 4548

MERWPWPSGGAWLLVAARALLQLLRSDLRLGRPLLAALALLAALDWLCQRLPPPAALAVLAAAGWIALSRLARP
QRLPVATRAVLITGCDSGFGKETAKKLDSMGFTVLATVLELNSPGAIELRTCCSPRLRLLQMDLTKPGDISRLLE
FTKAHTTSTGLWGLVNNAGHNEVVADAELSPVATFRSCMEVNFFGALELTKGLLPLLRSRGRIVTVGSPAGDMP
YPCLGAYGTSKAAVALLMDTFSCCELLPWGVKVSIIQPGCFKTESVRNVGQWEKQKQLLLANLPQELLQAYGKDYI
EHLHGQFLHSLRLAMSDLTPVVDAITDALLAARPRRRYYPGQGLGLMYFIHYLPEGLRRRFLQAFFISHCLPRA
LQPGQPGTTFPQDAAQDPNLSPGPSPAVAR

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FIGURE 4549A

AGTGGCGTCGGAAGTCAAAGCACCTGTGAGCTTGCGGAAGTCAGTTTCAGACTCCAGCCCGCTCCAGCCCGGCC
GACCCGACCGCACCCGGCGCTGCCCTCGCTCGGCGTCCCGGCCAGCCATGGGCCCTTGGAGCCGACGCTCTC
GGCGCTGCTGCTGCTGCTGTCAGGTCTCCTCTTGCTCTGCCAGGAGCCGAGCCCTGCCACCCTGGCTTTGACGC
CGAGAGCTACACGTTACGGTGCCCCGGCGCCACCTGGAGAGAGGCCGCGTCTGGGCAGAGTGAATTTGAAGA
TTGCACCGGTGACAAAAGGACAGCCTATTTTTCCCTCGACACCCGATTCAAAGTGGGCACAGATGGTGTGATTAC
AGTCAAAAGGCTCTACGGTTTCATAACCCACAGATCCATTTCTTGGTCTACGCTGGGACTCCACCTACAGAAA
GTTTTCCACCAAAGTCACGCTGAATACAGTGGGGCACCACCACCGCCCCCGCCCCATCAGGCCTCCGTTTCTGG
AATCCAAGCAGAAATTGCTCACATTTCCCACTCCTCTCCTGGCCTCAGAAGACAGAAGAGAGACTGGGTTATTCC
TCCCATCAGCTGCCCAGAAAATGAAAAAGGCCCATTTCTAAAAACCTGGTTTCAGATCAAATCCAACAAAGACAA
AGAAGGCAAGGTTTTCTACAGCATCACTGGCCAAGGAGCTGACACACCCCTGTTGGTGTCTTTATTATTGAAAG
AGAAACAGGATGGCTGAAGGTGACAGAGCCTCTGGATAGAGAACGCATTGCCACATACACTCTCTCTCAGGC
TGTGTCATCCAACGGGAATGCAGTTGAGGATCCAATGGAGATTTTGATCAGGTAACCGATCAGAATGACAACAA
GCCCGAATTCACCCAGGAGGTCTTTAAGGGGTCTGTCTGGAAGGTGCTCTTCCAGGAACCTCTGTGATGGAGGT
CACAGCCACAGACGCGGACGATGATGTGAACACCTACAATGCCGCCATCGCTTACACCATCCTCAGCCAAGATCC
TGAGCTCCCTGACAAAAATATGTTTACCATTAAACAGGAACACAGGAGTCATCAGTGTGGTCACCCTGGGCTGGA
CCGAGAGAGTTTCCCTACGTATACCTGGTGGTTCAAGCTGCTGACCTTCAAGGTGAGGGGTAAAGCACAAACAGC
AACAGCTGTGATCAGTCACTGACACCAACGATAATCCTCCGATCTTCAATCCCACCACGTACAAGGTGAGGT
GCCTGAGAACGAGGCTAACGTGTAATCACCACACTGAAAGTGAAGTGTGCTGATGCTGATGCCCCAATACCCAGCGTG
GGAGGCTGTATACACCATATTGAATGATGATGGTGGACAATTTGTCTGTCACCACAAATCCAGTGAACAACGATGG
CATTTTGAAGAACAGCAAAGGGCTTGGATTTTGAGGCCAAGCAGCAGTACATTCTACAGTAGCAGTGACGAATGT
GGTACCTTTGAGGTCTCTCTCACCACCTCCACAGCCACCGTCACCGTGGATGTGCTGGATGTGAATGAAGCCCC
CATCTTTGTGCTCCTGAAAAGAGAGTGAAGTGTCCGAGGACTTTGGCGTGGGCCAGGAAATCACATCCTACAC
TGCCAGGAGCCAGACACATTTATGGAACAGAAAATAACATATCGGATTTGGAGAGACACTGCCAAGTGGCTGGA
GATTAATCCGGACACTGGTGCCATTTCCACTCGGGCTGAGCTGGACAGGGAGGATTTTGAGCAGTGAAGAACAG
CACGTACACAGCCCTAATCATAGCTACAGACAATGGTTCTCCAGTTGCTACTGGAACAGGGACACTTCTGCTGAT
CCTGTCTGATGTGAATGACAACGCCCCATACCAGAACCTCGAATCTATTTCTTCTGTGAGAGGAATCCAAAGCC
TCAGGTATATAAATCATGATGACAGCTTCTCTCCCAATACATCTCCCTTCACAGCAGAACTAACACACGGGGC
GAGTGCCAAGTGGACCATTCAGTACAACGACCCCAACCAAGAATCTATCATTTTGAAGCCAAAGATGGCCTTAGA
GGTGGGTGACTACAAAATCAATCTCAAGCTCATGGATAACCAGAATAAAGACCAAGTGACCACCTTAGAGGTGAG
CGTGTGTGACTGTGAAGGGGCCGCCGGCTGTGTAGGAAGGCACAGCCTGTGCAAGCAGGATTGCAAATTCCTGC
CATTTCTGGGGATTCTTGGAGGAATTTCTTGCTTTGCTAATTTCTGATTCTGCTGCTCTTGTGTTTTCTCGGAGGAG
AGCGGTGGTCAAAGAGCCCTTACTGCCCCAGAGGATGACACCCGGGACAACGTTTATTACTATGATGAAGAAGG
AGGCGGAGAAGAGGACCAGGACTTTGACTTGAGCCAGCTGCACAGGGGCTGGACGCTCGGCCTGAAGTGACTCG
TAACGACGTTGCACCAACCCTCATGAGTGTCCCCGGTATCTTCCCCGCCCTGCCAATCCCGATGAAATTGGA
TTTTATTGATGAAAATCTGAAAGCGGCTGATACTGACCCACAGCCCCGCTTATGATTCTCTGCTCGTGTGTTGA
CTATGAAGGAAGCGGTTCCGAAGCTGCTAGTCTGAGCTCCCTGAACTCCTCAGAGTCAGACAAAGACCAGGACTA
TGACTACTTTGAACGAATGGGGCAATCGCTTCAAGAAGCTGGCTGACATGTACGGAGGCGGCGAGGACGACTAGGG
GACTCGAGAGAGGCGGGCCCCAGACCCATGTGCTGGGAAATGCAGAAATCACGTTGCTGGTGGTTTTTTCAGCTCC
CTTCCCTTGAGATGAGTTTCTGGGGAAAAAAGAGACTGGTTAGTGATGCAGTTAGTATAGCTTTTATACTCTCT
CCACTTTATAGCTCTAATAAGTTTGTGTTAGAAAAGTTTCGACTTATTTCTTAAAGCTTTTTTTTTTTTCCCATC
ACTCTTTACATGGTGGTGTATGTCCAAAAGATAACCAAATTTTAAATATTCAGAAGAACAACCTTTAGCATCAGAAG
GTTCAACCCAGCACCTTGAGATTTTCTTAAAGGAATTTTGTCTCACTTTTAAAAAGAAGGGGAGAAGTCAGCTACT
CTAGTTCTGTTGTTTTTGTGTATATAATTTTTTAAAAAAATTTGTGTGCTTCTGCTCATTACTACACTGGTGTGT
CCCTCTGCCTTTTTTTTTTTTTTTAAAGACAGGGTCTCATTCTATCGGCCAGGCTGGAGTGCAGTGGTGAATCAC
AGCTCACTGCAGCCTTGCTCTCCAGGCTCAAGCTATCCTTGACCTCAGCCTCCCAAGTAGCTGGGACCACAGG
CATGCACCACTACGCATGACTAATTTTTTAAATATTTGAGACGGGGTCTCCCTGTGTTACCCAGGCTGGTCTCAA
ACTCCTGGGCTCAAGTGATCCTCCCATCTTGGCCTCCAGAGTATTGGGATTACAGACATGAGCCACTGCACCTG
CCCAGCTCCCCAAGTCCCTGCCATTTTTTAAAGAGACAGTTTCGCTCCATCGCCAGGCTGGGATGCAGTGATGT

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FIGURE 4549B

GATCATAGCTCACTGTAACCTCAAACCTCTGGGGCTCAAGCAGTTCTCCCACCAGCCTCCTTTTTATTTTTTTGTA
CAGATGGGGTCTTGCTATGTTGCCCAAGCTGGTCTTAAACTCCTGGCCTCAAGCAATCCTTCTGCCTTGGCCCC
CAAAGTGCTGGGATTGTGGGCATGAGCTGCTGTGCCAGCCTCCATGTTTTAATATCAACTCTCACTCCTGAATT
CAGTTGCTTTGCCCAAGATAGGAGTTCTCTGATGCAGAAATTATTGGGCTCTTTTAGGGTAAGAAGTTTGTGTCT
TTGTCTGGCCACATCTTGACTAGGTATTGTCTACTCTGAAGACCTTTAATGGCTTCCCTCTTTCATCTCCTGAGT
ATGTAAC TTGCAATGGGCAGCTATCCAGTGACTTGTCTGAGTAAGTGTGTTCAATTAATGTTTATTAGCTCTGA
AGCAAGAGTGATATACTCCAGGACTTAGAATAGTGCCTAAAGTGCTGCAGCCAAAGACAGAGCGGAACATGAAA
AGTGGGCTTGAGATGGCAGGAGAGCTTGTCAATTGAGCCTGGCAATTTAGCAAAC TGATGCTGAGGATGATTGAG
GTGGGTCTACCTCATCTCTGAAAATTCTGGAAGGAATGGAGGAGTCTCAACATGTGTTTCTGACACAAGATCCGT
GGTTTGTACTCAAAGCCCAGAATCCCCAAGTGCCCTGCTTTTGATGATGTCTACAGAAAATGCTGGCTGAGCTGAA
CACATTTGCCCAATTCCAGGTGTGCACAGAAAACCGAGAATATTCAAATTCCAAATTTTTCTTAGGAGCAAGA
AGAAAATGTGGCCCTAAAGGGGGTTAGTTGAGGGGTAGGGGGTAGTGAGGATCTTGATTGGATCTCTTTTTATT
TAAATGTGAATTTCAACTTTTGACAATCAAAGAAAAGACTTTTGTTGAAATAGCTTTACTGTTTCTCAAGTGTTT
TGGAGAAAAAATCAACCCTGCAATCACTTTTTGGAATTGTCTTGATTTTTCGGCAGTTCAAGCTATATCGAATA
TAGTTCTGTGTAGAGAATGTCACTGTAGTTTTGAGTGTATACATGTGTGGGTGCTGATAATTGTGTATTTCTTT
GGGGTGGAAGGAAAACAATTCAAGCTGAGAAAAGTATTCTCAAAGATGCATTTTTATAAATTTTATTAAACA
ATTTTGTTAAACCATAAAAAAAAAAAAAA

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FIGURE 4550

MGPWSRSLSALLLLLQVSSWLCQEPEPCHPGFDAESYFTTVPRRHLERGRVLGRVNFEDCTGRQRTAYFSLDTRF
KVGTDGVITVKRPLRFHNPQIHFLVYAWDSTYRKfstKVTlNTVGHHRPPPHQASVSGIQAELLTFPNSSPGLR
RQKRDWVIPPISCPENEKGFPFKNLVQIKSNKDKEGKVfYSITGQGADTPPVGVFIIERETGWLKVTEPLDRERI
ATYTLFHAVSSNGNAVEDPMEILITVTDQNDNKPEFTQEVFKGSVMEGALPGTSVMEVTATDADDDVNTYNAAI
AYTILSQDPELPDKNMFTINRNTGVISVVTTLGLDRESFPTYTLVVQAADLQGEGLSTTATAVITVTDNDNPPIF
NPTTYKGQVPENEANVVITTLKVTADAPNTPAWEAVYTI LNDDGGQFVVTTNPVNNDGILKTAKGLDFEAKQY
ILHVAVTNVVPFEVSLTTSTATVTVDVLDVNEAPIFVPPEKRVEVSEDFGVGQEITSYTAQEPDTFMEQKITRYI
WRDTANWLEINPDTGAISTRAELDREDFEHVKNSTYTALI IATDNGSPVATGTGTLILLSDVNDNAPIPEPRTI
FFCERNPKPQVINIIDADLPNTSPFTAELTHGASANWTIQYNDPTQESIILKPKMALEVGDYKINLKLMDNQNK
DQVTTLEVSVCDCEGAAGVCRKAQPVEAGLQIPAILGILGGILALLILILLLLLFLRRRAVVKEPLLPPEDDTRD
NVYYYDEEGGGEEDQDFDLSQLHRGLDARPEVTRNDVAPTILMSVPRYLPRPANPDEIGNFIDENLKAADTDPTAP
PYDSL LVFDYEGSGSEAASLSSLNSSES DKDQDYDYLNEWGNRFKKLADMYGGGEDD

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FIGURE 4551

AGTGCTCGCGGCGGCGGCGACGGCGGCGGGAGGTTTCGGTTGTGCGCCGTTGGCCGCGCGGCGCCGCGCTCGGCGG
CCGCCATTGCAGGGAATCCCTGTGCTGATCGTGGGGCATCATATCCTGTATGGGAAAAATCATCCACCTGGAGAAA
CCTTTTGCAGTCCTTGTCAAACACACTCCTGGGGATCAGGACTGTGATGAGCTTGGCCGCGAGACTGGCACCCGG
TACCTGGTGACAGCACTCATCAAAGACAAGATCCTTTTCAAAAACCCGCCCCAAGCCCATATCACCAGCGTCCCC
AAGAAAGTATGAAAGAACCTCGGATTTTCCCTAGAGAGCGGCCAACTCCTTGGACTCGTGCTCCGCTGCCACCTC
GAGGACGGCTCGACGGTTCCCTGGGACCACAGGGGGTCTGTCTGAACACAGGCCACCCACTGGGTGTGAAC
CGGATCCCTTTCCTATGGCGGCGGGTTCTCTTGGTGGAATCTGACCCCATTTCCAAGGAACCCATCTCCTTTTC
CAGCTTATCAGGCTCATTGGCTTCAAATCCAGCACCTTTCCCGGCTGGTGCTCGTGACCCAAGTATGGCTTCTT
TTCCAAGAGGGATGAATCCACTGGCACAGGTGCAGTTTCTTTCCCAAGGCCTGGTGGCCTCTTGGGGCCAGGCC
CAGGCCCAGGCCCCACCCCTAAACCCTAGGACAGGGGCTCTGCCAGGCCCAGGGCCTCTGTCTAACCCCAAGGTAG
GGGGTCTCCAGGACCAGGTCTATGTCCAACCCAGGGCAGGTGGTCTCCTGGGAGCAGGTCTTGACCCAGAG
GTGGTGGTCCCATGGGCCCTGGATCTGGACCTAACCTGAGAGCCGGTGTCTGTAAACCTCTGGGAATGGTCCTC
CCAATCCTAGGCCAGTTGGCCTGGGCCCAGGACCAACCCCAATCTGAGATCAGGCTTTTATGGGACAAACCCCTG
CCCCCAGGTCAGGTGTGTTTCCAGGCCCAGGCCTTGGGCCCAACCCCAAGACCAAGTGGCCTGGGCCCAGGCCCTA
ATCTAGATGCCAGAGCAGGTGGCCTCTTGGGCACAGGATCTGGTCTTAACCTAAGAATGGCTGGACCTCAAGGCC
TCGATCTTGCCCCATTCTAAGAGCAGCAGGTCTTTTAGGAGCAAATTCAGCTTCTTTCTCACAGGCTTCTGGAA
ACATGGGCACAAGCCCATCCTCCATGGCAAGAGTACCTGGCCCCATGGGCCCAAATCTCGGGTCTAGCTCTCGGG
GAATTGGCCTTCCAGGGCCAAATCCATCTCCATGTCAAGGGCTCCTGGCCCCATAGGCCCTAATTCAGCTCATT
TCTCAAGGCCAGTTGGCCCCATGGGGGTAAATGCCAATCCCTTTCCAGGGGAGCAGGTTCACTGCGCTTTTCTC
AGTCTTCTGGCACATTGGCATCAAACCCAGCTACCTTCCAAAGTCCGCTGGCCTCCAGGGCTCAAATCCAACCA
TTTTCCCAAGAGCCTCTGGGCCACTTGGGCCCAACCCAGCTAACTTCCCAAGGGCCACTGGCCTGCAGGGTCCAA
GTCCAACCTACCTTCCCAAGGTCTACTGGCCCATTAGGCCCTGGTCAAGTTACTTTCCCCAGGCCAGCTGCCGGGC
ATCTGGGCCCTTCTCCAGCTGGCCCTGTGGGTATCAACCCAGCTCCTTTTACAAGGCCAACTGGGACCCCTGGGTC
TCAACCCAGCTTCCCTTTCCAAGGATGAATGGCCCTGCAGGCCAAGAGTTTTCGTCCCATTTCTTAGAGTGGGGAGCC
TCCCTGGCACAAACCCAGCTGCTTTCCCCAGACCAGGGGGTCCAATGGCTGCAATGTACCCAAATGGAATGTTGC
CCCCCTAAACACCATTTTCCCTCCAGGACCACCTTGGTTTCTAGGCACTGTGGTTCTTGGCAGGGGCTGTCTTAG
GTAAAAGGGTAGTTGTGGAGCTACAGTCTGAAGAACATAGCTTGGGCTCAAGTTCAAATGAGCCATCTTTTTCCT
TTGCGTTTTTCTTGAAGGTGAGATGTTATTTGTGGCATGTGAACGTGGCAGGTGGGAATAATCCTGCCCT
TGAGAGAAAGGATCTCCAGCCTCCAGAAGCCTGCTGTGCTTTTCGTCCACAGCTTTCTGCCCATTTGTTCTTAC
TAGTTTCTTGAATTGTTCTTGTGGACTTTTCTCAGGGATACATTGGCCTGCAGGTCCCAGTTCACATGTAGTCC
CCTGCTCACCATTGGAGAATCAGCTCAGTCTCTAGAAACGTGGCGTTGGTGAACGGACCATGCTTCCGTAGC
TCTGACCTGGGCAGCTTGGACCTGGTCATCCTCTACTGCCATACCTTTCCCTGGGGGCTTGAACACAGAACAGGG
AGATGGACAACCACTTCAAAGAAAGACCCACCGAATGCAGTTTCTGCTTGACTGACTGGGCCTGCAGCTCCCTTC
TCCTGGGACTTAGAGGTGGCCAGATTTAAGGCCCTCTACTCATCCAACCTCCCTCTTCACTGGTACTCCCAATCA
ATCAAAGAACCTCAAAATTTAAACTGATGTGGATGGGAATATGGGAATTAGGGTGGGGGTGGGGGATGAAGGGAA
GAAATCACTGTGCTTTGTTCCGCCTGGTGTGCAAGGATGGTTGGTGGTTTTCTGCATTGTATCTTTTCTTACTG
TTTCTTTAATAAATGGGATGAGAGGGC

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FIGURE 4552

MKEPRIFPRERPTPWTRAPLPPRGRLDGS LGPQGGPV LNTGHPLGVNSDPFLMAAGSLGGNLTPFPRNPSPFPAS
SGSLASNPAPFFAGARDPSMASFPRGMNPTGTGAVSFPRPGLLGPGPGPGPTLNPRTGALPGPGPLSNPRLGGL
PGPGPMSNPRAGGLLGAGDPDRGGGPMGPGSGPNLRAGVLLTSGNGPPNPRPVGLGPGPNPNLRSGLGTNPAPR
SGVFPGLGPNRPSGLGPGPNLDARAGLLGTGSGNLNRMAGPQGLDLAPILRAAGLLGANSASFQASGNMG
TSPSSMARVPGPMGPNSG PSSRGIGLPGNPSPMSRAPGPIGPNSAHFSRPVGPMGVNANPFPRGAGSSAFSQSS
GTLASNPATFQRSAGLQGSNPTIFPRASGPLGNPANFP RATGLQGPSPTTFPRSTGPLGPGQVTFPRPAAGHLG
PSPAGPVGINPAPFTTRPTGTLGLNPASFPRMNGPAGKSFVFPFPRVGS LPGTNPAAFPRPGGPMAAMY PNGMLPP

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FIGURE 4553

CTCAGTTAGCGGTGGAGAGGCAGTATGTCCGGTTCAATGGCGACTGCGGAAGCTAGCGGCAGCGATGGGAAAGGG
CAGGAAGTCGAGACCTCAGTCACCTATTACCGGTTGGAGGAGGTGGCAAAGCGCAACTCCTTGAAGGAACGTGTGG
CTTGTGATCCATGGGCGAGTCTACGATGTCACCCGCTTCCTCAACGAGCACCCCTGGAGGAGAAGAGGTTCTGCTG
GAACAAGCTGGTGTAGATGCAAGTGAAAGCTTTGAAGATGTAGGACACTCTTCTGATGCCAGAGAAATGCTAAAG
CAGTACTACATTGGTGATATCCATCCGAGTGACCTTAAACCTGAAAGTGGTAGCAAGGACCCCTTCAAAAAATGAT
ACATGCAAAAGTTGCTGGGCATATTGGATTTTACCCATCATAGGCGCTGTTCTCTTAGGTTTCTGTACCGCTAC
TACACATCGGAAAGCAAATCCTCCTGAGGAGGCCTTGCTGAAGTTAGAAAGTGCATCCACTTTGGGGCGAAAAC
AGAGACTTGCTTGGGGGCTGCAGAAAGTGCCCTCTCCTCGAATCCTGCCAGTTGCATTCTTCCCCCTTGGAGCCAA
GACGATTGGCCAGACATCACCTCAGATCTGAGACCAGCGTCTTCCATCTCTCAGAGCCTTACTCCCAAAGTACCT
GCTCACTGTTCCGTGTTGAACAATTGCCGGTGTTCCTCTCTTCACTGGTTTCCATGAGTACCCCTTATATTTTAC
AACTTTCTGTTTATAAGTTATAGTGACATTGCTCTTTGGTAAAAATGCCTGCTTTTCCAATACTTTGATTGCATAT
TAGACATTCTTAACAGGGCGGCAGTCTAGTGTTGAAAGTTTTATTTTCCATTTTCTTTTAAGTAAATTTTTTT
TAAAAAATTCTGATTTAGGGCTAGGTGTGGTGGCTCAGGCCTGTAATCCTGGCACTTTGGGAGGCCAAGGTGGGA
ACATCGCTTGAGGCCAAGAGTTCAAGACCAGCCTGGGCAACATAGCGAGACCCCTATCTGTATTAAAAAAAATC
TGATTTAATTCTTTTATTTATCATAAGGGGTTAATTCTGAAGTAAAGGTTTGCACCTATTAACTTAAACTG
CCAAATGATTTTTGTCTTTTATGTGCGTGATAAAAAACAAAGAATGGTGTGGCCACCTCCTCCCTTTCAAGCT
AGGGCAGCAGGTAGCTCTTCCAGCCCTGAGCCAGCCCTTCCCAAGTGGTGCCGGACAAAAAACTACATGGC
CCTTTCGTGCTTGGGGGTGAAAGGGAGGGATGAATTGGGGTGATAGAACCCTGGTGAATTCAGAGTAATCTTT
CTTTAGAAAACCTGGTGTCTTTCTAAAGAAACAGGATAGGAGTTTAGAGAAGGCACCAAAGCTTTCACTTTGGTTTG
GCACCACTTTCTAACCATCTGTTTTTCTACCCTAGCTATCTTTTATTGGTAAAAATATAAATGTATAATTATGTT
TGTAAGCTTTACCAAGGAGTTTCCCTCCTTTTTTGTGTTGTTGATTAGCAAATTTTGTATTCTCCATTTTCCAA
AAGTAAGAGACTCCAGCATGGCCTTCTGTTTGCCCCGAGTAAAGTAACTTCCATATAAAATGGTATTTGAAAGT
GAGAGTTCATGACAACAGACCGTTTCCATTTTATCTGTATTTTATCTCCGTGACTCCAACCTTGTGGGTTTGTTC
TGTTTTTCCATGAGAATAAAATACTGGCGGTTTTTTTTTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA

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FIGURE 4554

MATAEASGSDGKGQEVETSVTYRLEEVAKRNSLKELWLVIHGRVYDVTRFLNEHPGGEEVLLEQAGVDASESFE
DVGHSSDAREMLKQYYIGDIHPSDLKPESGSKDPSKNDTCKSCWAYWILPIIGAVLLGFLYRYTSESKSS

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FIGURE 4555

CACACACCCCTACAATCCCCTCCCCAGCCCCGAGAGACTTTTCTTGACTTCCACCAGTTGCTCCGGCGGGTGAG
AGTGGAGAGGCCCCCTCCTTCATCCCCCAGGCTCCCCTCCCCTGAGCTGCAGCCTCAGCATCCTCCGCCCCAGC
ACCCCAGGATTCAGGCGTTGGGTCCCCGCCCTTGTAGGCTGTCCACCTCAAACGGGCGCGGACAGGATATATAAGAG
AGAATGCACCGTGCCTACACACGCGACTCCCACAAGGTTGCAGCCGGAGCCCGCCAGCTCACCAGAGAGCCTAGT
TCCGGCCAGGGTCGCCCCGGCAACCACGAGCCCAGCCAATCAGCGCCCCGGACTGCACCAGAGCCATGGTCGGCA
GAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGAGCTCCTTCAACTATGCCATGAAGGAGGCTGCTGCAGCGG
CTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACCTCAATCCCATCATTTCAGAA
AGGACATCACAGGTAACTGAAGGACCTGCGAACTTTCACTATCCTGCCGAGTCTGTTCTGGCTTATAAAGAAG
GCCATCTGAGCCCAGATATTGTGGCTGAACAAAAGAGCTGGAAGCCGAGACCTTGTGATATTCCAGAGTAAGA
AGGCAGTGCTTTCCATCACCCTGGTGGCAGTGGCTCCATGTAATCTCTGCAAGGGATCCACGGGGACATGAATG
TCATTCTCTGGCCAATTACAGAGTGGCATTCTGCATTTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATA
GCATTGGGCACACTCCAGCAGACGCCCGAATTCAAATCCTGGAAGGATGGAAGAAACGCCTGGAGAATATTTGGG
ATGAGACACCACTGTATTTTGCTCCAAGCAGCCTCTTTGACCTAACTTCCAGGCAGGATTCTTAATGAAAAAAG
AGGTACAGGATGAGGAGAAAAACAAGAAATTTGGCCTTTCTGTGGGCCATCACTTGGGCAAGTCCATCCCAACTG
ACAACCAGATCAAAGCTAGAAAATGAGATTCCCTTAGCCTGGATTTCTTCTAATCATGTTATCAAATCTGGGTATC
TTTCCAGGCTTCCCTGACTTGCTTTAGTTTTTAAGATTTGTGTTTTCTTTTTCCACAAGGAATAAATGAGAGGG
AATCGACTGTATTCGTGCATTTTGGATCATTTTAACTGATTCTTATGATTACTATCATGGCATATAACCAAAA
TCCGACTGGGCTCAAGAGGCCACTTAGGGAAAGATGTAGAAAGATGCTAGAAAAATGTTCTTTAAAGGCATCTAC
ACAATTTAATCCTCTTTTTAGGGCTAAAGTTTTAGGGTACAGTTTGGCTAGGTATCATTCAACTCTCCAATGTT
CTATTAATCACCTCTCTGTAGTTTATGGCAGAAGGGAATTGCTCAGAGAAGGAAAAGACTGAATCTACCTGCCCT
AAGGGACTTAACCTTGTGGTAGTTAGCCATCTAATGCTTGTGTTATGATATTTCTTGCTTTCAATTACAAAGCAG
TACTAATATGCCTAGCACAAGTACCACTCTTGGTCAGCTTTTGTGTTTATATACAGTACACAGATACCTTGAA
AGGAAGAGCTAATAAATCTTCTTTGCTGCAGTCATCTACTTTTTTTTAAATTAAAAAAAATTTTTTTTTGAAG
CAGTCTTGCTCTGTIACCCAGGCTGGAGTGCAGTGGTGTGATCTCGGCTCACTGCAACCTCTGCCTCCCAGGTTT
CAGCAATTCCTCGCTCAGCCTCCCTAGTAGCTGGGATGACAGGCGCCTGCCATCATGCCTGACTAATTTTTGT
ATTTTTAGTAGAGACGGCGTTTACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCTGCCTGC
CTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGA

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FIGURE 4556

CTCTCAGCAGCCAACATGGCTCCAGTGGAGCACGTTGTGGCGGATGCTGGGGCTTTCTGCGGCATGCGGCTCT
GCAGGACATCGGGAAGAACATTTACACCATCCGGGAGGTGGTCACTGAGATTGCGGACAAGGCCACACGCAGGCG
GCTCGCTGTCTGCCCTACGAGCTGCGGTTCAAGGAGCCCTTACCGGAATACGTGCGGCTGGTGACTGAGTTTTC
AAAGAAAACAGGAGACTACCCCAGCCTCTCTGCCACGGACATCCAAGTGCTTGCACTCACATACCAGTTGGAAGC
AGAGTTTGTGGGGTGTCTCACCTAAAACAAGAACCACAGAAAGGTTAAGGTGAGCTCATCGATTGAGCAGCCAGA
AACACCTCTGCACATTTCTGGTTTCCATCTGCCCTACAAGCCTAAACCCCCACAAGAAACAGAAAAAGGACACTC
AGCTTGTGAGCCTGAGAACCTGGAATTTAGTTTCCTTCATGTTCTGGAGAAACCCCTTTGCCCAACATCGATCATGA
ACTGCAGGAGCTGCTGATTGACAGAGGTGAGGACGTTCCAAGTGAGGAGGAGGAGGAGGAAGAAAAAGGGTTTGA
AGACAGAAAAGATGACAGCGATGACGACGGGGGTGGCTGGATAACCCCCAGTAACATCAAGCAGATCCAGCAGGA
GCTGGAGCAGTGTGACGTCCCCGAGGACGTGCGGGTTGGCTGCCTGACCACAGACTTCGCCATGCAGAATGTTCT
GCTGCAGATGGGGCTGCACGTGCTGGCGGTGAACGGCATGCTGATTTCGTGAGGCCCGGAGCTACATCTTGCGCTG
CCATGGCTGTTTCAAGACAACGTCTGACATGAGCCGAGTGTTCTGCTCACACTGTGGGAACAAGACCCCTGAAGAA
AGTGTCGGTGACCGTCAGCGACGACGGCACCCCTGCACATGCACTTCTCCCGCAACCCCAAGGTGCTGAACCCCG
CGGCCTCCGGTACTCGCTTCCCCTCCCAAGGGGGCAAATACGCCATCAACCCCATCTCACCGAGGATCAGCG
CTTCCCTCAGCTGCGACTCTCCCAAAAGGCCAGGCAGAAAACCAACGTGTTGCGCCCTGACTACATCGCCGGGGT
GTCACCTTTGTGAGAATGACATCTCCAGCCGCTCAGCTACCCTGCAGGTCCGGGACAGCACCTTGGGAGCTGG
GCGGAGACGCTTAAATCCCAACGCTTCCAGAAAGAGTTTGTGAAGAAAAGGTGAAGAGCGAGTTCCCGCAGGCA
AATTGGATGGGCGTCTGGCCGCCGTGGAGTTCCGGTGACCCATTTCCCCAGCCGTGTCGTCTCCAGGACCACCCG
ATGGAATAACAGGCGGGCTTACGGTGCGGCTCTGTCCGCCATGCCCCGCTGGGTCTGCAGGGAACCTGGACTG
TCCCATGGCCTGTGAGCACCGGAGCGCCTGGCTGCCTGCCAAGGAAGTGCAATTGCATAAAAACAGAAAGAACAA
CGCCCTGGAGCCAATCTTCAAGAAAGGAATTTCCAAAGGATAATATTTTCTAATAAATGCGGCTGCAACCTCCT
GTGCATTTAATTAAATAGGCCAAATTTTGTGCTTAGGTGATCTCAAGGCTGATACTTGAGCTGTGTGCCCAGA
GATCATGCATTTAGATTTATATTTTGCCAGAAAATACAAGGTTATAATAAACTAAGAACTACCAAAAAAAAAA
AAAAAAA

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FIGURE 4557

MAPVEHVADAGAF LRHAALQDIGKNIYTIREVVTEIRDKATRRRLAVLPYELRFKEPLPEYVRLVTEFSKKTGD
YPSLSATDIQVLALTYQLEAEFVGVS HLKQEPQKVVS SSIQHPETPLHISGFHLPYKPKPPQETEKGHSACEPE
NLEFSSFMFWRNPLPNIDHELQELLIDRGEDVPSEEEEEENG FEDRKDDSDDDGGGWITPSNIKQIQQELEQCD
VPEDVRVGCLTTDFAMQNVLLQMGLHVLAVNGMLIREARSYILRCHGCFKTTSDMSRVFCSHCNKTLLKKVSVTV
SDDGTLHMHFSRNP KVLNPRGLRYS LPTPKGGKYAINPHLTEDQRFPQLRLSQKARQKTNVFAPDYIAGVSPFVE
NDISSRSATLQVRDSTLGAGRRRLNPNASRKKFVKKR

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FIGURE 4558

CTTTTCTCGGGACGGGAGAGGCCGTGTAGCGTCGCCGTTACTCCGAGGAGAGACCAGTCGGTAGAGGAGAAGTCC
AGGTTAGAGGGAAGTGGGAGGCACCTTTGCTGTCTTCAATCGAAGTTGAGGGTGCAAAATGCAGAGTAATAAAAC
TTTTAACTTGGAGAAGCAAAACCATACTCCAAGAAAGCATCATCAACATCACCACCAGCAGCAACAGCTGCAGCC
GCCACCACCGCCAATACCTGCAAATGGGCAACAGGCCAGCAGCCAAAATGAAGGCTTTGACTATTTGGCCTGAAG
AATTTTAGAAAACCAGGAGAGAAGACCTTCACCCAACGAAGCCGTCTTTTGTGGGAAATCTTCCTCCCGACATC
ACTGAGGAAGAAATGAGGAAACTATTTGAGAAATATGGAAGGCAGGCCGAAGTCTTCATTGATAAGGATTAAGGA
TTTGGCTTTATCCGCTTGGAAACACGAACCCTAGCGGAGATTGCGAAAGTGGAGCTGGACAATATGCCACTCTGT
GGAAAGCAGCTGCGTGTGCGCTTTTCTGCCATAGTGCATCCCTTACAGTTCGAAACCTTCCTCAGTATGTGTCC
AACGAAGTGCTGGAAGAAGCCTTTTCTGTGTTTGGCCAGGTAGAGAGGGCTGTAGTCATTGTGGATGATCGAGGA
AGGCCCTCAGGAAAAGGCATTGTTGAGTTCTCAGGGAAGCCAGCTGCTGGGAAAGCTCTGGACAGACGCAGTGAA
GGCTCCTTCCTGCTAACCACATTTCTCGTCCTGTGACTATGGAGCCCATGGACCAGTTAGATGATGAAGGGGA
CTTCAGAGAAGCTGGTTATAAAAAACCAGCAATTTACAAAGGAACGAGAGCAACCACCCAGATTTGCACAGCCT
GGCTCCTTTGAGTATGAATATGCCATGCGCTGGAAGGCACTCATTGAGATGGAGAAGCAGCAGCAGGACCAAGTG
GACCGCAACATCAAAGAGGCTCGTGAGAAGCCAGAGATGGAGATGGAGGCTGCACGCCATAAGCACCAGGTGCAA
CTAATGAGACAGAATTTGATGAGGCGCCAAGAAGAACTTCGGAGGATGGAAGAGCTGCACAACCAAGAGGTGCAA
AAACGAAAGCAACTGGAGCTCAGGCAGGAGGAAGAGCGCAGGCGCCCTGAAGAAGAGATGCGGCGGGCAGCAAGAA
GAAATGATGCAGCCACAGCAGGAAGGATTCAAGGGAACCTTCCCTGATGTGAGAGAGCAGGAGATTTGGATGGGT
CAGATGGCTATGGGAGGTGCTATGGGCATAAACAGCAGAGGTGCCTTGACCCCTGCTCCTGTGCCAGCTGGTACC
CCAGCTCCTCCAGGACCTGCCACTATGATGCCGATGGAACCTTTGGGATTGACCCACCAACAACCTGAACGCTTT
GGTCAGGCTGCTACAATGGAAGGAATTGGGGCAATTGGTGAAACTCCTCCTGCATTCAACCATGCAGCTCCTGGA
GCTGAATTTGCTCCAAACAAACGTCGCCGATACTAATAAGTTGCAGTGTCTAGTTTCTCAAACCCCTTAAAGAA
GGACCCCTTTTGGACCAGCCAGAATTCTACCCCTGGAAAAGTGTTAGGGATTCTTCCAATAGTTAGATCTACCCT
GCCTGTACTACTCTAGGGAGTATGCTGGAGGCAGAGGACAAGGGAGGGGTGGTATTAAACAAGTCAATTCTATGT
AGTATATTATTAAATCAGTTCTGTGTGGTGCATTCTGAAAGTCTCAAATGTGATTGTTGAGGGCCTGGGGAAACC
ATGGCAAAGTAGATCCAGTTAGAGCCCATTAACTCTTGATCATTCTGTTTTTTTTGGTTTGTGTTGTTTTTTTTT
TTTTTTTTTTTTGTCCATCTTGTTCATTGCTTGCCCTGCCCCGAGATGGAGTCTTACTCTGTGCCCCAGGCT
GGAGTGTAGTGGCACGATCTCGGCTCACTGCAATCTCTGCCTCTCGGGTTCAAGCTTGTCCAGGCTGATCTTGAA
CTCCTGACCTCGTGATCCCCTGCCTCAGCCTCCCAAAATGTGGGATTACAGGGGTGAGCCACCGTGCCCAACCT
CACTTGCTTTCTTATCCTTACACTCCCCCAGTCCCAGAGAAACTGCCACATACACCACAAAACCAAACATCCCC
CAATGACCTTAGCCGCATTGCTCCATTCACTCCAGGTGAGAATTCAGGTAAACGTCCACAAAGGTCACAGGCAA
CGTACATACGGTTCTATTATATCCCATATATTACCCCTTCATGTCCTAAAGAAGACATTTTCTCTTAGAGATTTT
CATTTTAGTATATCTTTAAAAAAAATCTTGTGTAACTTGCCCTCCATCTTTTTCTTGGGTGAGGACACCCAGGA
ATGACCCCTTTTGTGTCTATGATACTGCTGTTACAGCTTTTCTTGATAGGCCTAGTACAATCTTGGGAACAGGGT
TACTGTATACTGAAGGTCTGACAGTAGCTCTTAGACTCGCCTATCTTAGGTAGTCATGCTGTGCCCTTTTTTTTCC
ATTGGTGTATTGATTTGATTTGTCTCTGATATATTGGAGTTTTTCTGAGAACTGGAGCAGTAATGCAGCATCG
ACCTATTAAATACATTTTAAGCCTTT

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FIGURE 4559

MPLCGKQLRVRFSCHSASLTVRNLPQYVSNEVLEEAFSVFGQVERAVVI VDDRGRPSGKGIVEFSGKPAAGKALD
RRSEGSFLLTTFFRPVTMEPMDQLDDEGGLPEKLVIKNQGFHKEREQPPRFAQPGSF EY EYAMRWKAL IEMEKQQ
QDQVDRNIKEAREKPEMEMEAAARHKHQVLMRQNLMRQEEELRRMEELHNQEVQKRKQLELRQEEERRRPEEEMR
RQQEEMMQPQQEGFKGTFPDVREQEIWMGQMAMGGAMGINSRGALTPAPVPAGTPAPPGPATMMPDGTGLGLTPPT
TERFGQAATMEGIGAIGETPPAFNHAAPGAEFAPNKRRRY

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FIGURE 4560

GCAGTGAAGGCTCCTTCCTGCTAACCACATTTCTCGTCCTGTGACTATGGAGCCCATGGACCAGTTAGATGATG
AAGGGGGACTTCCAGAGAAGCTGGTTATAAAAAACCAGCAATTTACAAGGAACGAGAGCAACCACCCAGATTTG
CACAGCCTGGCTCCTTTGAGTATGAATATGCCATGCGCTGGAAGGCACTCATTGAGATGGAGAAGCAGCAGCAGG
ACCAAGTGGACCGCAACATCAAAGAGGCTCGTGAGAAGCCAGAGATGGAGATGGAGGCTGCACGCCATAAGCACC
AGGTCATGCTAATGAGACAGAATTTGATGAGGCGCCAAGAAGAAGCTTCGGAGGATGGAAGAGCTGCACAACCAAG
AGGTGCAAAAACGAAAGCAATCTCTGCCTCTCGGGTTCAAGCTTGTCCAGGCTGATCTTGAACCTCTGACCTCGT
GATCCCCTGCCTCAGCCTCCCAAATGCTGGGATTACAGGGGTGAGCCACCGTGCCCAACCTCACTTGCTTTCTT
ATCCTTACACTCCCCAGTCCCAGAGAACTGCCACATACACCACAAAACCAACATCCCCAATGACCTTAGC
CGCATTGCTCCATTCACTCCAGGTGAGAATTCAGGTAAACGTCCACAAAGGTCACAGGCAACGTACATACGGTT
CTATTATATCCCATATATTACCCCTTCATGTCCTA

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FIGURE 4561

CTTTTCTCGGGACGGGAGAGGCCGTGTAGCGTCGCCGTTACTCCGAGGAGAGACCAGTCGGTAGAGGAAGAGCGC
AGGCGCCCTGAAGAAGAGATGCGGCGGCAGCAAGAAGAAATGATGCAGCCACAGCAGGAAGGATTCAAGGGAACC
TTCCCTGATGTGAGAGAGCAGGAGATTGGATGGGTCAGATGGCTATGGGAGGTGCTATGGGCATAAACAGCAGA
GGTGCCTTGACCCCTGCTCCTGTGCCAGCTGGTACCCAGCTCCTCCAGGACCTGCCACTATGATGCCGGATGGA
ACTTTGGGATTGACCCACCAACAACCTGAACGCTTTGGTCAGGCTGCTACAATGGAAGGAATTGGGGCAATTGGT
GAAACTCCTCCTGCATTCAACCATGCAGCTCCTGGAGCTGAATTTGCTCCAAACAAACGTCGCCGATACTAATAA
GTTGCAGTGTCTAGTTTCTCAAAACCCTTAAAAGAAGGACCCTTTTGGACCAGCCAGAATTCTACCCTGGAAAA
GTGTTAGGGATTCCCTTCCAATAGTTAGATCTACCCTGCCTGTACTACTCTAGGGAGTATGCTGGAGGCAGAGGAC
AAGGGAGGGGTGGTATTAAACAAGTCAATTCTATGTAGTA

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FIGURE 4562

AGTGGTGTCCGCAAAGCCCAAGGTGCATAATCGTCAACCTCGAATTAACCTCTACGTGGAGGTGGCGGTGGATGG
ACTCCCCAGTGAGACCAAGAAGACTGGGAAGCGCATTGGGAGCTCTGAGCTTCTCTGGAATGAGATCATCATTTT
GAATGTCACGGCACAGAGTCATTTAGATTTAAAGGTCTGGAGCTGCCATACCTTGAGAAATGAACTGCTAGGCAC
CGCATCTGTCAACCTCTCCAACGTCTTGAAGAACATGGGGGCAAAATGGAGAACATGCAGCTGACCCCTGAACCT
GCAGACGGAGAACAAGGCAGCGTTGTCTCAGGCGGAGAGCTGACAAATTTTCTGGACGGGCAACTGTTGATCT
GGGAAATGTGCCTAATGGCAGTGCCCTGACAGATGGATCACAGCTGCCTTCGAGAGACTCCAGTGGAACAGCAGT
AGCTCCAGAGAACC GGACCCAGCAGCCCCCAGCACAACTGCTTTGGTGGAAAGATCCCGGACGCACAGACATTCGGG
TGCTTCAGCCAGAACAACCCAGCAACCGGCGAGCAAGCCCCGGTGCTCGGAGCCGGCACCGCCAGCCCGTCAA
GAACTCAGGCCACAGTGGCTTGCCCAATGGCACAGTGAATGATGAACCCACAACAGCCACTGATCCCGAAGAACC
TTCCGTTGTTGGTGTGACGTCCCCACCTGCTGCACCTTGAGTGTGACCCCGAATCCCAACACGACTTCTCTCCC
TGCCCCAGCCACACCGGCTGAAGGAGAGGAACCCAGCACTTCGGGTACACAGCAGCTCCAGCGGCTGCCAGGC
CCCCGACGCTCTGCCTGCTGGATGGGAACAGCGAGAGCTGCCCAACGGACGTGTCTATTATGTTGACCACAATAC
CAAGACCACCACTGGGAGCGGCCCTTCTCCAGGCTGGGAAAAACGCACAGATCCCCGAGGCAGGTTTTACTA
TGTGGATCACAATACTCGGACCACCACTGGCAGCGTCCGACCGCGGAGTACGTGCGCAACTATGAGCAGTGGCA
GTCGCGAGCGGAATCAGCTCCAGGGGGCCATGCAGCACTTCAGCCAAAGATTCTCTACCAGTCTTCGAGTGTTC
GACTGACCATGATCCCCCTGGGCCCCCTCCCTCCTGGCTGGGAGAAGAGACAGGACAATGGACGGGTGTATTACGT
GAACCATAACACTCGCACGACCCAGTGGGAGGATCCCCGGACCCAGGGGATGATCCAGGAACCAGCTCTGCCCCC
AGGATGGGAGATGAAATACACCAGCGAGGGGGTGCATACCTTTGTGGACCACAATACCCGCACCACCACCTTTAA
GGATCCTCGCCCGGGGTTT GAGTCGGGGACGAAGCAAGGTTCCCTTGGTGTCTTATGACCGCAGTTTTCCGGTGGAA
GTATCACCAGTTCCGTTTCTCTGCCATTCAAATGCCCTACCTAGCCACGTGAAGATCAGCGTTTTCCAGGCAGAC
GCTTTTTCGAAGATTCTTCCAACAGATCATGAACATGAAACCTATGACCTGCGCCCGCGGCTCTACATCATCAT
GCGTGGCGAGGAGGGCTGGACTATGGGGGCATCGCCAGAGATGGTTTTTCTCTGTCTCATGAGGTGCTCAA
CCCTATGTATTGTTTATTTGAATATGCCGGAAGAACAATTACTGCCTGCAGATCAACCCCGCCTCCTCCATCAA
CCCGGACCACCTACCTACTTTTCGCTTTATAGGCAGATTTCATCGCCATGGCGCTGTACCATGGAAAGTTTCATCGA
CACGGGCTTCACCTCCCTTTCTACAAGCGGATGCTCAATAAGAGACCAACCCTGAAAGACCTGGAGTCCATTGA
CCCTGAGTTCTACAACCTCCATTGTCTGGATCAAAGAGAACAACCTGGAAGAATGTGGCCTGGAGCTGTACTTCAT
CCAGGACATGGAGATACTGGGCAAGGTGACGACCCACGAGCTGAAGGAGGGCGGCGAGAGCATCCGGGTCACAGA
GGAGAACAAGGAAGAGTACATCATGCTGCTGACTGACTGGCGTTTTACCCGAGGCGTGGAAAGAGCAGACCAAAGC
CTTCTGGATGGCTTCAACGAGGTGGCCCCGCTGGAGTGGCTGCGCTACTTTGACGAGAAAGAGCTGGAGCTGAT
GCTGTGCGGCATGCAGGAGATAGACATGAGCGACTGGCAGAAGAGCACCATCTACCGGCACTACACCAAGAACAG
CAAGCAGATCCAGTGGTTCTGGCAGGTGGTGAAGGAGATGGACAACGAGAAGAGGATCCGGCTGCTGCAGTTTGT
CACCGGTACCTGCCGCTGCCGTCGGGGATTGCGCAACTCATCGGTAGCAACGGACCACAGAAGTTTTGCAT
TGACAAAGTTGGCAAGGAAACCTGGCTGCCAGAAGCCACACCTGCTTCAACCGTCTGGATCTTCCACCTACAA
GAGCTACGAACAGCTGAGAGAGAAGCTGCTGTATGCCATTGAGGAGACCGAGGGCTTTGGACAGGAGTAACCGAG
GCCGCCCCCTCCACGCCCCCAGCGCACATGTAGTCTGAGTCCCTCCCTGCCTGAGAGGCCACTGGCCCCGCAGC
CCTTGGGAGGCCCGCTGGATGTGGCCCTGTGTGGGACCACACTGTCATCTCGCTGCTGGCAGAAAAGCCTGATC
CCAGGAGGCCCTGCAGTTCCCCCGACCCGCGGATGGCAGTCTGGAATAAAGCCCCCTAGTTGCCCTTGGCCCCAC
CTTTGCAAAGTTCCAGAGGGCTGACCCTCTCTGCAAACTCTCCCTGTCTCTAGACCCACCCCTGGGTGTATG
TGAGTGTGCAAGGGAAGGTGTTGCATCCCCAGGGGTGCCGAGAGGCCGGAGACCTCCTGGACTAGTTGGCGA
GGAGACTGGCCACTGGGGGTGGCTGTTGCGGACTGAGAGCGCCAAGGGTCTTTGCCAGCAAAGGAGGTCTGCCT
GTAATTGAGCCTCTCTGATGATGGAGATGAAGTGAAGTCTGAGGGAGCGGGCCCTGGGGCGAGGCCATCTCTGC
CTGCCTCCCTAGCAGGCGCCAGCGGTGGAGGCTGAGTCGAGGACACATGCCGGCCAGTTAATTCATTCTCAGCC
AATGAAGGTTTGTCTAAGCTGCCTGGGTATCCACGGGACAAAAACAGCAAACCTCCCTCAGACTTTGTCCATGTAT
AAACTGAAAGTGGTTGTGTGTAGGGTTGCAGTTTTTTGTTACGCTGCTGTCACTTTCTGTC

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FIGURE 4563

MASASSRAGVALPFEKSQLTLKVVSAPKPKVHNRQPRINSYVEVAVDGLPSETKKTGKRIGSSELLWNEIIILNV
TAQSHLDLKVWSCHTLRNELLGTASVNLNVLKNNGGKMMENMQLTLNLQ TENKGSVVSGGELTIFLDGPTVDLGN
VPNGSALTDGSQLPSRDSSGTAVAPENRHQPPSTNCFGGRSRTHRHSGASARTTPATGEQSPGARSRRHQPVKNS
GHSGLANGTVNDEPTTATDPEEPSVVGVTSPPAAPLSVTPNPNTTSLPAPATPAEGEEPSTSGTQQLPAAAQAPD
ALPAGWEQRELPNGRVYYVDHNTKTTTWERPLPPGWEKRTDPRGRFYVDHNTTRTTWQRPTAEYVRNYEQWQSQ
RNQLQGAMQHFSQRFLYQSSSASTDHDPLGPLPPGWEKRQDNGRVYYVNHNTTRTTQWEDPRTQGMIEPALPPGW
EMKYTSEGVRYFVDHNTTRTTTFKDPRPGFESGTKQSGPAYDRSFRWKYHQFRFLCHSNALPSHVKISVSRQTLF
EDSFQQIMNMKPYDLRRRLYIIMRGEGLDYGGIAREWFFLLSHEVLNPMYCLFEYAGKNNYCLQINPASSINPD
HLTFRFRIGRFIAMALYHGKFIDTGFTLPFYKRMLNKRPTLKDLESIDPEFYNSIVWIKENNLEECGLELYFIQD
MEILGKVTTHELKEGGESIRVTEENKEEYIMLLTDWRFTRGVEEQTKAFLDGFNEVAPLEWLRYFDEKELEMLC
GMQEIDMSDWQKSTIYRHYTKNSKQIQWFWQVVKEMDNEKRIRLLQFVTGTCRLPVGGAELIGSNGPQKFCIDK
VGKETWLP RSHTCFNRDLDPYKSYEQLREKLLYAIEETEGFGQE

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FIGURE 4564

GGTACAGCTGCGCGTCTGCGGGAATAGGTGCAGCGGGCCCTTGGCGGGGGACTCTGAGGGAGGAGCTGGGGACGG
CGACCCTAGGAGAGTTCTTTGGGGTGACTTTCAAGATGGACTCTACTCTAACAGCAAGTGAAATCCGGCAGCGAT
TTATAGATTTCTTCAAGAGGAACGAGCATACGTATGTTCACTCGTCTGCCACCATCCCATTGGATGACCCCACTT
TGCTCTTTGCCAATGCAGGCATGAACCAGTTTAAACCCATTTTCCTGAACACAATTGACCCATCTCACCCCATGG
CAAAGCTGAGCAGAGCTGCCAATACCCAGAAGTGCATCCGGGCTGGGGGCAAACAAAATGACCTGGACGATGTGG
GCAAGGATGTCTATCATCACACCTTCTTCGAGATGTGGGCTCTTGGTCTTTTGGAGATTACTTTAAGGAATTGG
CATGTAAGATGGCTCTGGAACCTCTCACCCAGAGTTTGGCATTCCCATTGAAAGACTTTATGTTACTTACTTTG
GCGGGGATGAAGCAGCTGGCTTAGAAGCAGATCTGGAATGCAACAGATCTGGCAAAATTTGGGGCTGGATGACA
CCAAAATCCTCCCAGGCAACATGAAGGATAACTTCTGGGAGATGGGTGACACGGGCCCTGTGGTCTTTCAGTG
AGATCCACTACGACCGGATTGGTGGTCTGGGACGCCGCACATCTTGTCACCCAGGACGACCTAATGTGCTGGAGA
TCTGGAACCTTGTGTTTATCCAGTATAACAGGGAAGCTGATGGCATTCTGAAACCTCTTCCCAAGAAAAGCATTG
ACACAGGGATGGGCCTGGAACGACTGGTATCTGTGCTGCAGAATAAGATGTCCAATATGACACTGACCTTTTGG
TCCCTTACTTTGAAGCCATTGAGAAGGGCACAGGTGCCCGACCATACTGGGAAAGTTGGTGCTGAGGATGCCG
ATGGGATTGACATGGCCTACCGGGTGTGGCTGACCATGCTCGGACCATCACTGTGGCACTGGCTGATGGTGGCC
GGCCTGACAACACAGGGCGTGGATATGTGTTGAGACGGATTCTCCGCCGAGCTGTCCGATACGCCCATGAAAAGC
TCAATGCCAGCAGGGGCTTCTTTGCTACGTTAGTGGATGTTGTCGTCCAGTCCCTGGGAGATGCATTTCTTGAGC
TGAAGAAGGACCCAGACATGGTGAAGGACATCATTAAATGAAGAAGAGGTGCAGTTTCTCAAGACTCTCAGCAGAG
GGCGTCGCATCCTGGACAGGAAAATTGAGAGCCTGGGAGACAGCAAGACCATTCCCGGAGACACTGCTTGGCTCC
TCTATGACACCTATGGGTTTCCAGTGGATCTGACTGGACTGATTGCTGAAGAGAAGGGCTGGTGGTAGACATGG
ATGGCTTTGAAGAGGAGAGGAACTGGCCCACTGAAATCACAGGGCAAGGGAGCTGGTGGGAAGACCTCATT
TGCTGGACATTTACGCTATCGAAGAGCTCCGGGCACGGGCTTGGAGGTCACAGATGATTCCCCAAAGTACAATT
ACCATTTGGACTCCAGTGGTAGCTATGTATTTGAGAACACAGTGGCTACGGTGATGGCTCTGCGCAGGGAGAAAG
TGTTGCTGGAAGAGGTGTCCACAGGCCAGGAGTGTGGAGTGGTGTGAGACAAGACCTGTTTCTATGCTGAGCAAG
GAGGCCAGATCTATGACGAAGGCTACCTGGTGAAGGTGGATGACAGCAGTGAAGATAAAACAGAGTTTACAGTGA
AGAATGCTCAGGTCCGAGGAGGGTATGTGCTACACATTGGAACCATCTACGGTGACCTGAAAGTGGGGGATCAGG
TCTGGCTGTTTTATTGATGAGCCCCGACGAAGACCCATCATGAGCAACCACACAGCTACGCACATTCTGAACTTCG
CCCTGCGCTCAGTGCTTGGGGAAGCTGACCAGAAAGGCTCATTGGTTGCTCCTGACCGCCTCAGATTTGACTTTA
CTGCCAAGGGAGCCATGTCCACCCAACAGATCAAGAAGGCTGAAGAGATTGCTAATGAGATGATTGAGGCAGCCA
AGGCCGTCTATACCCAGGATTGCCCCCTGGCAGCAGCGAAAGCCATCCAGGGCCTACGGGCTGTGTTTGATGAGA
CCTATCCTGACCCTGTGCGAGTCTCTCATTGGGGTCCCGGTGTCCGAGTTGTGGATGACCCCTCTGGGCCTG
CTGGCTCCCTGACTTCTGTTGAGTTCTGTGGGGGAACGCACCTGCGGAACCTCGAGTCATGCAGGAGCTTTTGTGA
TCGTGACGGAAGAAGCCATTGCCAAGGGTATCCGGAGGATTGTGGCTGTACAGGTGCCGAGGCCAGAAAGGCC
TCAGGAAGCAGAGAGCTTGAAGAAATGTCTCTGTGTCATGGAAGCCAAAGTGAAGGCTCAGACTGCTCCAAACA
AGGATGTGCAGAGGGAGATCGCTGACCTTGGAGAGGCCCTGGCCACTGCAGTCATCCCCAGTGGCAGAAAGGATG
AATTGCGGGAGACTCTCAAATCCCTAAAGAAGGTGATGGATGACTTGGACCGAGCCAGCAAAGCCGATGTCCAGA
AACGAGTGTTAGAGAAGACGAAGCAGTTTCATCGACAGCAACCCCAACCAGCCTCTTGTATCCTGGAGATGGAGA
GCGGCGCCTCAGCCAAGGCCCTGAATGAAGCCTTGAAGCTCTTCAAGATGCACTCCCTCAGACTTCTGCCATGC
TCTTACGGTGGACAATGAGGCTGGCAAGATCACGTGCCTGTGTCAAGTCCCCCAGAATGCAGCCAATCGGGGCT
TAAAGCCAGCGAGTGGGTGCAGCAGGTGTGAGGCTTGTGAGCGGTAAGGTGGTGGCAAGGATGTGTCTGCAC
AGGCCACAGGCAAGAACGTTGGCTGCCTGCAGGAGGCGCTGCAGCTGGCCACTTCTTCGCCAGCTGCGCCTCG
GGGATGTAAAGAACTGAGTGGGGAAGGAGGAGGCTCCCACTGGATCCATCCGTCCAGCCAAGAGCTCTTCATCTG
CTACAAGAACATTTGAATCTTGGGACCTTTAAAGAGCCCCCTCTAACCAGCAGTAAGTGAACACACTTGGGAG
CAGTCTATGTCTCAGTGCCCTTAAATTTCTGCCCTGAGCCCTCCACGTGAGTCCATCGGTCTAGAACCCTA
ACCCCGCATTGCTGTTGATCGTCAGCTCGCATCTATAGATAACGGCTCTCCAGACCTGAGCTTTCGCGCTCAGC
AAGTAGGAATCGTTTTTGTGTCAGAGAATAAAAGGACCACGTGC

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FIGURE 4565

MDSTLTASEIRQRFIDFFKRNEHTYVHSSATIPLDDPTLLFANAGMNQFKPIFLNTIDPSHPMAKLSRAANTQKC
IRAGGKQNDLDDVGKDVYHHTFFEMLGSWSGDYFKELACKMALELLTQEFGIPIERLYVTYFEGDEAAGLEADL
ECKQIWQNLGLDDTKILPGNMKDNFWEMGDTGPCGPCSEIHYDRIGGRDAAHLVNQDDPNVLEIWNLVFIQYNRE
ADGILKPLPKSIDTGMGLERLVSVLQNKMSNYDTDLFVPYFEAIQKGTGARPYTGKVGAEADAGIDMAYRVLAD
HARTITVALADGGRPDNTGRGYVLRRIILRAVRYAHEKLNASRGFFATLVDVVVQSLGDAFPELKKDPDMVKDII
NEEEVQFLKTLRGRRIILDRKIQSLGDSKTIPGDTAWLLYDITYGFPVDLTGLIAEEKGLVVDMDGFEEERKLAQL
KSQKGAGGEDLIMLDIYAIEELRARGLEVTDSPKYNHLDSSGSYVFENTVATVMALRREKMFVEEVSTGQEC
GVVLDKTCFYAEQGGQIYDEGYLVKVDDSSSEDKTEFTVKNAQVRGGYVLHIGTIYGD LKVG DQVWLFIDEPRRRP
IMSNHTATHILNFA LRSVLGEADQKGS L VAPDRLRFDF TAKGAMSTQQIKKAE EIANEMIEAAKAVYTQDCPLAA
AKAIQGLRAVFDETY PDPVRVVSIGVPVSELDDPSG PAGSLTSVEFCGGTHLRNSSHAGAFVIVTEEAIAGKIR
RIVAVTGAEAQKALRKAESLKKCLSVMEAKVKAQTAPNKDVQREIADLGEALATAVIPQWQKDELRETLKSLKKV
MDDLDRASKADVQKRVLEKTKQFIDSNPNQPLVILEMESGASAKALNEALKLFKMHSPTSAMLFITVDNEAGKIT
CLCQVPQNAANRGLKASEWVQVSGLMDGKGGGKDVSAQATGKNVGCLQEALQLATSFAQLRLGDVKN

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FIGURE 4566

GTAGTGGGGCTGGAGCAGAGCCTGCCGCGAACCCCGGAGCCCACGATCCCTCGTGCCATCCCTCGAATCCACCA
GCACGAGCGTCCCACCCGCGCCTGGGACCAATGGCCACTGACTCATGGGCCCTGGCGGTGGACGAGCAGGAAGCTG
CGGCTGAGTCGTTGAGCAACTTGCATCTTAAGGAAGAGAAAATCAAACCAGATACCAATGGTGCTGTTGTCAAGA
CCAATGCCAATGCAGAGAAGACAGATGAAGAAGAGAAAGAGGACAGAGCTGCCCAGTCCCTTACTCAACAAGCTGA
TCAGAAGCAACCTTGTTGATAACACAAACCAAGTGGAAGTCTTGCAGCGGGATCCAACTCCCCCTCTGTACTCGG
TGAAGTCTTTTGAAGAGCTTCGGCTGAAACCACAGCTTCTCCAAGGAGTCTATGCCATGGGTTTCAATCGTCCAT
CCAAGATACAAGAGAACGCATTGCCACTGATGCTTGCTGAGCCCCACAGAACTTAATTGCCCAATCTCAGTCTG
GTACTGGTAAACAGCTGCCTTCGTGCTGGCCATGCTTAGCCAAGTAGAACCTGCAAAACAAATACCCCCAGTGTC
TATGTCTCTCCCCAACGTATGAGCTCGCCCTCCAAACAGGAAAAGTGATTGAACAAATGGGCAAAATTTTACCCTG
AACTGAAGCTAGCTTATGCTGTTGAGGCAATAAATTGGAAAGAGGGCCAGAAGATCAGTGAGCAGATTGTCAATTG
GCACCCCTGGGACTGTGCTGGACTGGTGCTCCAAGCTCAAGTTCATTGATCCCAAGAAAATCAAGGTGTTTGTTC
TGGATGAGGCTGATGTCATGATAGCCACTCAGGGCCACCAAGATCAGAGCATCCGCATCCAGAGGATGCTGCCCA
GGAAGTCCAGATGCTGCTTTTCTCCGCCACCTTTGAAGACTCTGTGTGGAAGTTTGCCAGAAAAGTGGTCCCAG
ACCCAAACGTTATCAAACCTGAAGCGTGAGGAAGAGACCCCTGGACACCATCAAGCAGTACTATGTCTGTGCAGCA
GCAGAGACGAGAAGTTCCAGGCCTTGTGTAACCTCTACGGGGCCATCACCATTGCTCAAGCCATGATCTTCTGCC
ATACTCGCAAAACAGCTAGTTGGCTGGCAGCAGAGCTCTCAAAGAAGGCCACCAGGTGGCTCTGCTGAGTGGGG
AGATGATGGTGGAACAGAGGGCTGCAGTGATTGAGCGCTTCCGAGAGGGCAAAGAGAAGGTTTTGGTGACCACCA
ACGTGTGTGCCCGCGGCATTGATGTTGAACAAGTGTCTGTCTCATCAACTTTGATCTTCCCGTGGACAAGGACG
GGAATCCTGACAATGAGACCTACCTGCACCGGATCGGGCGCACGGGCCGCTTTGGCAAGAGGGGCCTGGCAGTGA
ACATGGTGACAGCAAGCACAGCATGAACATCCTGAACAGAATCCAGGAGCATTTTAATAAGAAGATAGAAAGAT
TGGACACAGATGATTTGGACGAGATTGAGAAAATAGCCAACTGAGAAGCTCCACCAGCCACTGATGCCAGCCCTG
GCACTGCCCCCTGCACAGGAGACAAGTGCGTTTACGGGCACAGGCCCGACATCACCCCAAGGACAACGGCACAAGT
AGAGAGAAACTACCTACCTCACTTCAAATTATGTTTGGACTTGACAAAAATGTATGCAAATGATGGGGGATGGTA
GAAAAAAATTATTTACACAACCTTGGAAGATTAGGCATGAATACACAGAGATTACCTTTTGGAAAAAAAAAAAA
AAAAAA

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FIGURE 4567

MATDSWALAVDEQEAAAESLSNLHLKEEKIKPDTNGAVVKTNANAECTDEEEKEDRAAQSLNKLIRSNLVDNTN
QVEVLQRPNSPLYSVKSFEELRLKPQLLQGVYAMGFNRPSKIQENALPLMLAEPPQNLIQSQSGTGKTAAFVL
AMLSQVEPANKYPQCLCLSPITYELALQTGKVIEQMKGFPYELKLAYAVRGNKLERGQKISEQIVIGTPGTVLDWC
SKLKFIIDPKKIKVFLDEADVMIAATQGHQDQSIRIQRMLPRNCQMLLFSATFEDSVWKFAQKVVPDPNVIKLKRE
EETLDTIKQYYVLCSSRDEKFQALCNLYGAITIAQAMIFCHTRKTASWLAAELSKEGHQVALLSGEMMVEQRAAV
IERFREGKEKVLVTTNVCARGIDVEQSVVINFDLPVDKDGNDNETYLHRIGRTGRFGKRGGLAVNMVDSKHSMN
ILNRIQEHFNKKIERLDTDDLDEIEKIAN

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FIGURE 4568

GTACTATCCTCCTTACTTTTGGGTGCGGGCCCTCCGGGAAGATGGCGGCCGTGCAGGCGGCCGAGGTGAAAAGTGA
TGGCAGCGAGCCGAAACTGAGCAAGAATGAGCTGAAGAGACGCCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGA
GGCCAAACAGAAAGAGCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTCTGAGGAAGAGAGCGTGGACCCAAATCAATACTACAAAATCCGCAGTCAAGCAATTCATCAGCT
GAAGGTCAATGGGGAAGACCCATACCCACACAAGTTCCATGTAGACATCTCACTCACTGACTTCATCCAAAAATA
TAGTCACCTGCAGCCTGGGGATCACCTGACTGACATCACCTTAAAGGTGGCAGGTAGGATCCATGCCAAAAGAGC
TTCTGGGGGAAAGCTCATCTTCTATGATCTTCGAGGAGAGGGGGTGAAGTTGCAAGTCATGGCCAAATCCAGAAA
TTATAAATCAGAAGAAGAATTTATTCATATTAATAACAACTGCGTCGGGGAGACATAATTGGAGTTCAGGGGAA
TCCTGGTAAACCAAGAAGGTGAGCTGAGCATCATTCCGTATGAGATCACACTGCTGTCTCCCTGTTTGCATAT
GTTACCTCATCTTCACTTTGGGCTCAAAGACAAGGAAACAAGGTATCGCCAGAGATACTTGGACTTGATCCTGAA
TGACTTTGTGAGGCAGAAATTTATCATCCGCTCTAAGATCATCACATATATAAGAAGTTTCTTAGATGAGCTGGG
ATTCTAGAGATTGAAACTCCCATGATGAACATCATCCCAGGGGGAGCCGTGGCCAAGCCTTTCATCACTTATCA
CAACGAGCTGGACATGAACCTATATATGAGAATTGCTCCAGAACTCTATCATAAGATGCTTGTGGTTGGTGGCAT
CGACCGGGTTTATGAAATTGGACGCCAGTTCCGGAATGAGGGGATTGATTGACGCACAATCCTGAGTTCACCAC
CTGTGAGTTCTACATGGCCTATGCAGACTATCACGATCTCATGGAAATCACGGAGAAGATGGTTTCAGGGATGGT
GAAGCATATTACAGGCAGTTACAAGGTCACCTACCACCCAGATGGCCCAGAGGGCCAAGCCTACGATGTTGACTT
CACCCACCCCTTCGGCGAATCAACATGGTAGAAGAGCTTGAGAAAGCCCTGGGGATGAAGCTGCCAGAAACGAA
CCTCTTTGAAACTGAAGAACTCGCAAAATCTTGATGATATCTGTGTGGCAAAAGCTGTTGAATGCCCTCCACC
TCGGACCACAGCCAGGCTCCTTGACAAGCTTGTTGGGGAGTTCTTGAAGTGACTTGATCAATCCTACATTCTAT
CTGTGATCACCCACAGATAATGAGCCCTTTGGCTAAATGGCACCCTCTAAAGAGGGTCTGACTGAGCGCTTTGA
GCTGTTTGTGATGAAGAAAGAGATATGCAATGCGTATACTGAGCTGAATGATCCCATGCGGCAGCGGCAGCTTTT
TGAAGAACAGGCCAAGGCCAAGGCTGCAGGTGATGATGAGGCCATGTTTCATAGATGAAAACCTTCTGTACTGCCCT
GGAATATGGGCTGCCCCCACAGCTGGCTGGGGCATGGGCATTGATCGAGTCGCCATGTTTCTCAGGACTCCAA
CAACATCAAGGAAGTACTTCTGTTTCTGCCATGAAACCCGAAGACAAGAAGGAGAATGTAGCAACCACTGATAC
ACTGGAAGCACAAACAGTTGGCACTTCTGTCTAGAAAATAATAATTGCAAGTTGTATAACTCAGGCGTCTTTGCA
TTTCTGCGAAAGATCAAGGTCTGCAAGGGAATTCTTGTGTGCTGCTTTCCATTTGACACCGCAGTTCTGTTTCAGC
CATCAGAAGAGAGACAAGGAATTAATAAATTTCTTTTAACTCCTGTTA

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FIGURE 4569

MAAVQAAEVKVDGSEPKLSKNELKRRLKAEKKVAEKEAKQKELSEKQLSQATAAATNHTTDNGVGPEEESVDPNQ
YYKIRSQAIIHQLKVNGEDPYPHKFHVDISLTDIFIQKYSHLQPGDHLTDITLKVAGRIHAKRASGGKLIFYDLRGE
GVKLQVMANSRNYKSEEEFIHINNKLRRGDIIGVQGNPGKTKKGELSIIPYEITLLSPCLHMLPHLHFGDKDKET
RYRQRYLDLILNDFVRQKFIIRSKIITYIRSFDELGFLEIETPMMNIIIPGGAVAKPFIITYHNELDMNLYMRIAP
ELYHKMLVVGIDRVYEIGRQFRNEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMOVSGMVKHITGSYKVITYHP
DGPEGQAYDVDFTPPFRRINMVEELEKALGMKLPETNLFETEETRKILDDICVAKAVECPPPRTTARLLDKLVGE
FLEVTCINPTFICDHPQIMSPLAKWHRSEGLTERFELFVMKKEICNAYTELNDPMRQRQLFEEQAKAKAAGDDE
AMFIDENFCTALEYGLPPTAGWGMGIDRVAMFLTDSNNIKEVLLFPAMKPEDKKENVATTDLTLESTTVGTSV

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FIGURE 4570

AAGATGGCGGACCTTGATTGCGCTCCGAAGCTGTCAGGGGTGCAGCAGCCGTCTGAGGGGGTGGGAGGTGGCCGC
TGCTCCGAAATCTCCGCTGAGCTCATTGCTCCCTGACAGAGCTGCAGGAGCTGGAGGCTGTATACGAACGGCTC
TGCGGCGAGGAGAAAAGTGGTGGAGAGAGAGCTGGATGCTCTTTTGGAAACAGCAAAACACCAATTGAAAGTAAGATG
GTCACCTCTCCACCGAATGGGTCTTAATCTGCAGCTGATTGAGGGAGATGCAAAGCAGCTGGCTGGAATGATCACC
TTTACCTGCAACCTGGCTGAGAATGTGTCCAGCAAAGTTCGTACAGCTTGACCTGGCCAAGAACCCTCTATCAG
GCCATTGAGAGAGCTGATGACATCTTGGACCTGAAGTTCTGCATGGATGGAGTTCAGACTGCTTTGAGGAGTGAA
GATTATGAGCAGGCTGCAGCACATACTCATCGCTACTTGTGCTGGACAAGTGGGTGCTGAGCTCAGCCGACAG
GGCAAAGAGGGGAGCATGATTGATGCCAACCTGAAATTGCTGCAGGAAGCTGAGCAACGTCTCAAAGCCATTGTG
GCAGAGAAGTTTGGCATTGCCACCAAGGAAGGTGATCTGCCCCAGGTGGAGCGCTTCTTCAAGATCTTCCCACTG
CTGGGTTTGCATGAGGAGGGATTAAGAAAGTTCTCGGAGTACCTTTGCAAGCAGGTGGCCAGTAAAGCTGAGGAG
AATCTGCTCATGGTGTGGGACAGACATGAGTGATCGGAGAGCTGCAGTCATCTTTGCAGATACACTTACTCTT
CTGTTTGAAGGGATTGCCCGCATTTGTGGAGACCCACCAGCCAATAGTGGAGACCTATTATGGGCCAGGGAGACTC
TATACCCTGATCAAAATATCTGCAGGTGGAATGTGACAGACAGGTGGAGAAGGTGGTAGACAAGTTCATCAAGCAA
AGGGACTACCACAGCAGTTCCGGCATGTTTCAAGCAACCTGATGAGAAATTCTACAACAGAAAAATCGAACCA
AGAGAACTGGACCCCATCTGACTGAGGTACCCCTGATGAATGCCCCGAGTGAGCTATACTTACGCTTCCCTCAAG
AAGAGGATTAGCTCTGATTTTGGAGTGGGAGACTCCATGGCCTCAGAGGAAGTAAAGCAAGAGCACCAGAAGTGT
CTGGACAAACTCCTCAATAACTGCCTTTTGGAGCTGTACCATGCAGGAGCTAATTGGCTTATATGTTACCATGGAG
GAGTACTTTCATGAGGGAGACTGTCAATAAGGCTGTGGCTCTGGACACCTATGAGAAGGGCCAGCTGACATCCAGC
ATGGTGGATGATGTCTTCTACATTGTTAAGAAGTGCATTGGGCGGGCTCTGTCCAGCTCCAGCATTGACTGTCTC
TGTGCCATGATCAACCTCGCCACCACAGAGCTGGAGTCTGACTTCAGGGATGTTCTGTGTAATAAGCTGCGGATG
GGCTTTCCTGCCACCACCTTCCAGGACATCCAGCGCGGGGTGACAAGTGCCGTGAACATCATGCACAGCAGCCTC
CAGCAAGGCAAATTTGACACAAAAGGCATCGAGAGTACTGACGAGGCGAAGATGTCTTCCCTGGTGACTCTGAAC
AACGTGGAAGTCTGCAGTGAAAAATCTCCACTCTGAAGAAGACACTGGAGAGTGACTGCACCAAGCTCTTCAGC
CAGGGCATTGGAGGGGAGCAGGCCCAGGCCAAGTTTGACAGCTGCCCTTCTGACTTGGCCGCCGTGTCCAACAAA
TTCCGAGACCTCTTGAGGAAGGGCTGACGGAGCTCAACAGCACAGCCATCAAGCCACAGGTGCAGCCTTGGATC
AACAGCTTTTTCTCCGTCTCCCAACATCGAGGAGGAAGAATTCAATGACTATGAGGCCAACGACCCTTGGGTA
CAACAGTTTATCCTTAACCTGGAGCAGCAAATGGCAGAGTTCAAGGCCAGCCTGTCCCCGGTCTATCTACGACAGC
CTAACCGGCCTCATGACTAGCCTTGTGCGCTGAGTTGGAGAAAGTGGTGCTGAAATCCACCTTTAACCGGCTG
GGTGGTCTGCAGTTTGACAAGGAGCTGAGGTGCTCATTTGCCTACCTTACCACGGTGACCACCTGGACCATCCGA
GACAAGTTTGCCCGGCTCTCCAGATGGCCACCATCTCAATCTGGAGCGGGTGACCGAGATCCTCGATTACTGG
GGACCCAATTCCGGCCCATTTGACGTGGCGCCTCACCCCTGCTGAAGTGCGCCAGGTGCTGGCCCTGCGGATAGAC
TTCCGCAAGTGAAGATATCAAGAGGCTGCGCCTGTAGCTGCCTGGATGAGCACACCTGGCTCATCACACTTGCAGG
CCTGTTCCCTAAGGGGCCCCAGCCAAGGAGCTGAGCGAGGCTGTCTGGCTTGGGGGAGATCTGACAGCCCAGACC
TTTCTACGGCTGGCAGCAGAGAAACAAAGTCTGGACCCACTCCATGCTCTGCCCTCAGACCTGGCCAGGTGATGC
TCTGGGGGAGCATCTCCCCACCGAGAGAAGCGGGCTCCTAATGAGGTGGGAAAGCCACGGCAGGCAGCGAGCAG
CCCAGGCCAGCTTTCTGCATGGATGGTCAGTCTCTTGGCCCTCAAACACTACAGCAAACAAGTACCCCTGCCAGT
CCTAGACAACCTTGGGTACATCTGGGGACCTAGCAGTTAGGCTTGACTTTGAGGAGAGGCTGTGATGTTTATGATC
CCTGAATAAAGCTACTCCTTGGAGAGATGCCAGTGTGCTGTTACCAGGGAGGGCCAGATGCTATGGGGC

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FIGURE 4572

MCEGPSRISGPIPPDPTLCPDNYRRPTSAQGRLEGNAKLDLLTSDRALDTTAPRGPCIGPGAGEILERGQRGVG
DVLLQLEGISLGPGASLKRKDPKDHEKENLRRIREIQKRFRREQERSREQGQPRPLKALWRS PKYDKVESRVKAQL
QEPGPASGTESAHLRAHSRCGPGLPPPHVSSPQTPPGPEAKEPGLGVDFIRHNARA AKRAPRRHSCSLQVLAQ
VLEQQRQAQEHYNATQKGVPHYLLERRDLWRREAEARKQS QPDPAMPPGHTRMPENQRLETTLTKLLQS QSQLLR
ELVLLPAGADSLRAQSHRAELDRKLVQVEEAIKIFSRPKVFVKMDD

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[illegible]

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FIGURE 4574

MKMLPGVDVFGTGSSARVLVPLLRAEGFTVEALWGKTEEEAKQLAEEMNIAFYTSRTDDILLHQDVDLVCISIPP
PLTRQISVKALGIGKNVCEKAATSVDAFRMVTASRYYPQLMSLVGNVLRFLPAFVRMKQLISEHYVGAVMICDA
RIYSGSLLSPSYGWICDELMGGGGLHTMGTYIVDLLTHLTGRRAEKVHGLLKTFVRQNAAIRGIRHVTSDDFCFF
QMLMGGGVCSTVTLNFMPGAFAFVHEVMVVGSAAGRLVARGADLYGQKNSATQEELLLRDSLAVGAGLPEQGPQDVP
LLYLKGMVYMQALRQSFQGGDRRTWDRTVPVSMASFEDGLYMQSVVDAIKRSSRSGEWEAVEVLTEEPDTNQNL
LCEALQRNNL

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FIGURE 4575

GGAAGGGACAGTCGGCCGCAGACCGCGCTGGGTTGCCGCTGCCGCTGCCGCCATCGTGCCAGCCCCTCGGGTCTC
CGTGAGGCCGGGTGACGCTCCAGAAATGGGAGACAAGCCAATTTGGGAGCAGATTGGATCCAGCTTCATTCAACAT
TACTACCAGTTATTTGATAATGATAGAACCCAAGCTAGGCGCAATTTACATTGACGCGTCATGCCTTACGTGGGAA
GGACAACAGTTCCAGGGGAAAGCTGCCATTGTGGAGAAGTTGTCTAGCCTTCCGTTCCAGAAAATTCAGCACAGC
ATCACCGCGCAGGACCATCAGCCCACTCCAGATAGCTGCATCATCAGCATGGTTGTGGGCCAGCTTAAGGCGGAT
GAAGACCCCATCATGGGGTTCCACCAGATGTTCTATTAAAGAACATCAACGATGCTTGGGTTTGCACCAATGAC
ATGTTTCAGGCTCGCCCTGCACAACTTTGGCTGACCTCCTCTCAGCTAGGCACTCACGCTGTTTCTCTCCTCCCTCC
TCTTCCCAATACTATTCCCACTCCTCCAGATGCTCCAAATATCATGCACAAATGAGCAGGGCCGCGGTGGGAGTG
GGCGCAGTGCGCTGCTGCCACTGAGGTGTTGTGCATGATGTTTGGATGCTAGACTAGTTGCATCTGACGGGAGAA
GTTTGTGTTGTACCAGCGCATGCCTTGGAAAGACTTAAGTAATGCAAAAGGTTGTCTTTTTTTTTTTTTTTTTTT
TTTTAATCTACTGACAAGTTGCTCTAGTAACCCAAAGAGTGAAGGAGAAAGCAGCTGCCTCACCGCCCAGACAT
TGATTTGTTTCAGATGTTTCAATGCCTCATGATACAATAAAACCACAAAATTTTCTTAACAAAAA

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FIGURE 4576

MGDKPIWEQIGSSFIQHYYQLFDNDRTQLGAIYIDASCLTWEGQQFQGKAAIVEKLSSLFFQKIQHSITAQDHQP
TPDSCIISMVVGQLKADEDPIMGFHMFLKNINDAWVCTNDMFRALAHNFG

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FIGURE 4577

ATTGCCCGGAGATGGCCGGCAGAGCCGCCGAGACGCCGAAGAGCCCGCCGCCCGCGCGAGGTGTAGACGGGGGCAC
TGCCCTTCAGAGCAGGTTCCTGCCAGCCTCGCTGGAGAGGATGCCCTCGTGTCCGTGATGGGCTGTGGGACAAGCAA
GGTCCTTCCCCGAGCCACCCAAGGATGTCCAGCTGGATCTGGTCAAGAAGGTGGAGCCCTTCAGTGGCACTAAGAG
TGACGTGTACAAGCACTTCATCACAGAGGTGGACAGTGTGGCCCTGTCAAAGCCGGGTTCACGAGCAAGTCA
GTATGCACACCCCTGCCCGGTCCCCGACTGCTGGCCACACGGAGCCTCCCTCAGAACCACACGCAGGGCCAG
GGTAGCTAAGTACAGGGCCAAGTTTGACCCACGTGTACAGCTAAGTATGACATCAAGGCCCTAATTGGCCGAGG
CAGCTTCAGCCGAGTGGTACGTGTAGAGCACCGGGCAACCCGGCAGCCGTATGCCATCAAGATGATTGAGACCAA
GTACCGGGAGGGGCGGGAGGTGTGTAGTTCGGAGCTGCGTGTGCTGCGTTCGGGTGCGTCATGCCAACATCATCCA
GCTGGTGGAGGTGTTTCGAGACACAGGAGCGGTGTACATGGTGATGGAGCTGGCCACTGGTGGAGAGCTCTTTGA
CCGCATCATTGCCAAGGGCTCCTTCACCGAGCGTGACGCCACGCGGGTGCTGCAGATGGTGTGGATGGCGTCCG
GTATCTGCATGCACTGGGCATCACACACCGAGACCTCAAACCTGAGAATCTGCTCTACTACCATCCGGGCACTGA
CTCCAAGATCATCATCACCGACTTCGGCTGGCCAGTGTCTCGCAAGAAGGGTGATGACTGCTTGATGAAGACCAC
CTGTGGCACGCCTGAGTACATTGCCCCAGAAGTCTGGTCCGCAAGCCATACACCAACTCAGTGGACATGTGGGC
GCTGGGCGTCAATTGCCCTACATCCTACTCAGTGGCACCATGCCGTTTGAGGATGACAACCGTACCCGGCTGTACCG
GCAGATCCTCAGGGGCAAGTACAGTTACTCTGGGGAGCCCTGGCCTAGTGTGTCCAACCTGGCCAAGGACTTCAT
TGACCGCTGTGTACAGTGGACCTGGAGCCGTATGACTGCACTGCAGGCCCTGAGGCACCCGTGGGTGGTGAG
CATGGCTGCCTCTTCATCCATGAAGAACCTGCACCGCTCCATATCCCAGAACCTCCTTAAACGTGCCTCCTCGCG
CTGCCAGAGCACCAATCTGCCAGTCCACGCGTTCAGCCGCTCCACACGCTCCAATAAGTCACGCCGTGTGCG
GGAACGGGAGCTGCGGGAGCTCAACCTGCGCTACCAGCAGCAATACAATGGCTGAGCCGCTGGCTGTGCACACA
TGCAGCACGACCCAGCCTGGCCACACACTGTGGTGCCATCTGGGTCCGATGCCCTCTCTGGAGATAGGCCTATGT
GGCCACAGTAGGTGAAGAATGTCTGGCTCCAGCCCTTTCTCTGTGCCTTCAGCAGCCCTGTCTCTACCATGGG
CCTGGGCCAGGTGTGACAGAGTAGAGGTAGCACAGGGGGCTGTGACTCCCCCTGAAGTGGGAGCCTGGCCTGGCA
CTGATACCCCTCTTGGTGGGCAGCTGCTCTGGTGGAGTTGGGAAGGGATAGGACCTGGCCTTCACTGTCTCCCTT
GCCCTTTGACTTTTCCCCAATCAAAGGGAAGTGCAGTGTGGGTGGAGTGTCTGTGGCCTCAGGACCCCTTTGGG
ACAGTTACTTCTGGGACCCCTTTCTCCACAGAGCCCTTCTCCCTGGTTTCACACATTCCCATGCATCCTGATC
CTTAAGATTATGCTCCAGTGGGAGACCCTGGTAGGCACAAAGCTTGTGCCTTGAAGTGGACCCGTAGCCCTGGCT
AGGTGCAACAGCCCTCCACCTCCAGCCAAGATCTGTCTTCTTCATGGTGCCTCCAGGGAGCCTTCTGTGTCC
CAGGACCTCTGGTGGAGGGCCATGGCGTGACCTTCACCTTCTGGACTGTGTGGCCATGCTGGTCATCGGCTTG
CCCAGGCTCCAGCCTCTCCAGATTCTGAGGGGTCTCAGCCACCGCCCTTGGTGCCTTCTTTGTAGAGCCCACCG
CTACCTCCCTCTCCCGTTGGATGTCCATTCCATTCCCCAGGTGCCTCCTTCCCAACTGGGGGTGGTTAAAGGGA
GCCCCACTGTGTACTACCTGGGGAATGGGGCACCTGGGGGCCAAGGCAGAGGGAAGGGGTCTCCCGATAGGGTC
GAGTGTACGCTGGGTTCATCCTTTGGTGACGCCCATTTGCCCTTTCCCTTCAGGCTCTGTTGCTCCCTCCTCT
GCAGCTGCACGAAGGCGCCATCTGGTGTCTGCATGGGTGTTGGCAGCCTGGGAGTGATCACTGCACGCCCATCGT
GCACACCTGCCCATCGTGACACCCACCCATGGTGACACCTGTAGTCTCCATGAGGACATGGGAAGGTAGGAG
TTGCCGCCCTGGGGGAGGGTCCCGGGCTGCTCACCTCTCCCTTCTGCTGAGCTTCTGCGCACCCCTCCCTGGAA
CTTAGCCATACTGTGTGACCTGCCTCTGAAAACAGGGTGCCAGGGGCACTGCCTTCTCAGAGCTGGCCTTGCCCC
GTCCACCCCTGTGCTGCTTCCCTTCACAGCATTAAACCTTCCAGTCTGGGTCCCACTGAGCCTCAAGCTGGAAGGAG
CCCTGCGGGAGGTGGGTGGGGTTGGGTGGCTGCTTTCCAGAGGCCTGAGCCAGAACCATCCCCATTTCTTTTG
TGGTATCTCCCCCTACCACAAACCAGGCTGGAACCCAAGCCCTTCTCCACAGCTGCCTTCAGTGGGTAGAATG
GGGCCAGGGCCAGCTTTGGCCTTAGCTTGACGGCAGGGCCCTGCCATTGCAGGAGGGTTTGGTTCCCACTCAG
CTTCTGCCGGTTCGGCAGCCTGGGCCAGGCCCTTTCTGTCATGTGCCACCTCCAGTGGGAAACAAAATAAGAG
ACCACTCTGTGCCAAGTCGACTATGCCTTAGACACATCTCCTACCGTCCCAATGCCCCCTGGGCAGGAGGCAG
TGGAGAACCAAGCCCCATGGCCTCAGAATTTCCCCCAGTTCCCCAAGTGTCTCTGGGGACCTGAAGCCCTGGGG
CTTACGTTCTCTTGGCCAGGGTGGGCCTGGTCTGAGGGCAGGACAGGGGGTTTGGAGATGTGGGCCTTTGAT
AGACCCACTTGGGCCTTCATGCCATGGCCTGTGGATGGAGAATGTGCAGTTATTTATTATGCGTATTCAGTTTGT
AAACGTATCCTCTGTATTAGTAAACAGGCTGCCTCTCCAGGGAGGGCTGCCATTCAATTC

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FIGURE 4578

MGCGTSKVLPEPPKDVQLDLVKKVEPFSGTKSDVYKHFI TEVDSVGPVKAGFPAASQYAHPCPGPPTAGHTEPPS
EPPRRARVAKYRAKFDPRVTAKYDIKALIGRGSFSRVVRVEHRATRQPYAIKMIETKYREGREVCESLRVLRRV
RHANIIQLVEVFETQERVYMMELATGGELFDRI IAKGSFTERDATRVLQMVLDGVRYLHALGI THRDLPENLL
YYHPGTDSKIIITDFGLASARKKGDDCLMKTTCTGPEYIAPEVLVRKPYTNSVDMWALGVIAYILLSGTMPFEDD
NRTRLRYRQILRGKYSYSGEPWPSVSNLAKDFIDRLLTVDPGARM TALQALRHPWVVSMAASSSMKNLHRSISQNL
LKRASSRCQSTKSAQSTRSSRSTRSNKSRRVRERELRELNRLRYQQQYNG

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FIGURE 4579

ATCTGCCACGATGTTGCTGCTCAGCCTGACCCTAAGCCTGGTTCTCCTCGGCTCCTCCTGGGGCTGCGGCATTCC
TGCCATCAAACCGGCACTGAGCTTCAGCCAGAGGATTGTCAACGGGGAGAATGCAGTGTTGGGCTCCTGGCCCTG
GCAGGTGTCCCTGCAGGACAGCAGCGGCTTCCACTTCTGCGGTGGTTCTCTCATCAGCCAGTCCTGGGTGGTCAC
TGCTGCCCCTGCAATGTCAGCCCTGGCCGCCATTTTGTGTCTGCGGCGAGTATGACCGATCATCAAACGCAGA
GCCCTTGCAAGTTCTGTCCGTCTCTCGGGCCATTACACACCCTAGCTGGAACCTCTACCACCATGAACAATGACGT
GACGCTGCTGAAGCTCGCCTCGCCAGCCCAGTACACAACACGCATCTCGCCAGTTTGCCTGGCATCCTCAAACGA
GGCTCTGACTGAAGGCCTCACGTGTGTCAACCACCGGCTGGGGTTCGCTCAGTGGCGTGGGCAATGTGACACCAGC
ACATCTGCAGCAGGTGGCTTTGCCCCTGCTCACTGTGAATCAGTGCCGGCAGTACTGGGGCTCAAGTATCACTGA
CTCCATGATCTGTGCAGGTGGCGCAGGTGCCCTCCTCGTGCCAGGGTGACTCCGGAGGCCCTCTTGCTCTGCCAGAA
GGGAAACACATGGGTGCTTATTGGTATTGTCTCCTGGGGCACCAAAAAGTGAATGTGCGCGCACCTGCTGTGTA
TACTCGAGTTAGCAAGTTCAGCACCTGGATCAACCAGGTCATAGCCTACAAGTGAAGCTCACACAGGCCCTCCCC
AGCTCAACCCATTAAAGACCCAGGCCCTGTCCCATCATGCATTTCATGTCTGTCTTCTGCTCAGGAGAAAGAAG
AGGCTGTTGAGGGTCCGACTCCCTACTTGGACTTCTGGCACAGAAAGGGGCTGAGTGACTCCTTGAGTAGCAGTGG
CTCTTCCTAGAGTAGCCATGCCGAGGCCGGGGCCCCCACCCTCCTCCAGGGCAACCCCTTGGTCTACAGCAAG
AAGCCAGAAGTGTGGAATGAATGGCAGCCCTCCCTGGAGAGGCAGCCTGTTTACTGAATACAGAGGATACGTTT
ACAAACTGAATACGCATAATAAAATAACTGCACATTCTCCATCCAAAAAAAAAAAAAAAAAAAA

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FIGURE 4580

MLLLSLTSLVLLGSSWGCIPAIKPALSFSQRIVNGENAVLGSWPWQVSLQDSSGFHFCGGSLISQSWVVTAAH
CNVSPGRHFVVLGEYDRSSNAEPLQVLSVSRAITHPSWNSTTMNNDVTLLKLASPAQYTTRISPVCLASSNEALT
EGLTCVTTGWRLSGVGNVTPAHLQQVALPLVTVNQCRQYWGSSITDSMICAGGAGASSCQGDSSGGPLVCQKGNT
WVLIGIVSWGTKNCNVRAPAVYTRVSKFSTWINQVIAYN

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FIGURE 4581A

GGCACGAGGGGGCGGGGACAGCGGGCGGGGACAGCGGGCGGGCTGGGACGGCGGGGTGCGGCGGGGGCCGAGCCCCG
ACGATGCTCCTCCTCACCCTGGTGCCAGTGGACGGGGCCGAGGCGCGGCGACTATGACAACCTCGAGGGGCTCAGT
TGGGTGGACTACGGGGAGCGCGCCGAGCTGGATGACTCGGACGGACATGGCAACCACAGAGAGAGCAGCCCTTTT
CTTTCCCCCTTGGAGGCTTCCAGAGGAATTGACTACTATGACAGGAACCTGGCACTGTTTGGGAAGAGCTGGAC
ATCCGCCCAAAGGIATCGTCTCTTCTGGGAAAGCTCGTCAGCTACACCAACCTCACCAGGGGCGCCAAAGAGCAT
GAGGAGGGCCGAGAGTGGGGAGGGCACCCGCCGGAGGGCAGCCGAGGCACCCAGCATGGGCACCCCTCATGGGGGTG
TACCTGCCCTGCCTGCAGAATATCTTTGGGGTTATCCTCTTCTGCGGCTGACCTGGATGGTGGGCACAGCAGGT
GTGCTACAGGCCCTCCTCATCGTGCTTATCTGCTGCTGTTGTACCCTGCTGACGGCCATCTCCATGAGTGCCATC
GCCACCAACGGTGTGGTTCCAGCTGGGGGCTCCTATTTTCATGATCTCTCGTTCACTGGGGCCAGAATTTGGAGGT
GCTGTGGGCTGTGCTTCTACCTGGGAACAACATTTCGACGAGCCATGTACATCCTGGGGGCCATCGAGATCTTG
CTGACCTACATTGCCCCACCAGCTGCCATTTTTTACCCATCGGGTGCTCATGACACGTCGAATGCCACTTTGAAC
AATATGCGTGTGTATGGGACCATTTTCTGACCTTCATGACCTGGTGGTGTGTTGTGGGGGTCAAGTATGTGAAC
AAATTTGCCTCGCTCTTCTGGCCTGTGTGATCATCTCCATCCTCTCCATCTATGCTGGGGGCATAAAGTCTATA
TTTGACCTCCCGTGTTTCCGGTATGCATGCTGGGCAACAGGACCCTGTCCCGGGACCAGTTTGACATCTGTGCC
AAGACAGCTGTAGTGGACAATGAGACAGTGGCCACCCAGCTATGGAGTTTCTTCTGCCACAGCCCCAACCTTACG
ACCGACTCCTGTGACCCCTACTTTCATGCTCAACAATGTGACCGAGATCCCTGGCATCCCCGGGGCAGCTGCTGGT
GTGCTCCAGGAAAACCTGTGGAGCGCCTACCTGGAGAAGGGTGACATCGTGGAGAAGCATGGGCTGCCCTCCGCA
GATGCCCGGAGCCTGAAGGAGAGCCTGCCCTGTACGTGGTTCGCTGACATCGCCACATCCTTACCGTGCTGGT
GGCATCTTCTTCCCTTCTGTAACAGGCATCATGGCTGGCTCAAACCGCTCTGGGGACCTTCGTGACGCCCAGAAG
TCTATCCCTGTGGGGACCATTCTGGCCATCATTACAACCTTCCCTCGTGACTTCAGCAGTGTGGTTCTCTTTGGT
GCCTGCATTGAGGGTGTGGTTCTCCGGGACAAGTATGGCGATGGTGTGACAGGAACCTTGGTGGTGGGCACACTG
GCCTGGCCTTACCCCTGGGTCATCGTCATCGGCTCCTTCTTTTCAACGTGTGGCGCTGGCCTCCAGAGCCTCACA
GGGGCACCACGCCATTGACAGGCCATTGCCAAGGACAACATCATCCCTTCCCTCCGGGTGTTTGGCCACGGGAAG
GTGAATGGTGAACCCACATGGGCACTCCTCCTGACGGCACTCATCGCCGAGCTGGGCATCCTCATCGCCTCCCTC
GACATGGTGGCCCCCATCTTATCCATGTTCTTTCTGATGTGCTACCTGTTTCGTGAACCTCGCCTGTGCGGTGCAG
ACACTCCTGAGGACCCCCAACTGGCGGGCCCCGGTTCAAGTACTATCACTGGGCGCTGTCTTCTTGGGCATGAGT
CTCTGCCCTGGCCTTATGTTTGTCTCCTCCTGGTACTATGCCCTGGTGGCCATGCTCATCGCCGGCATGATCTAC
AAATACCTCGAGTACCAAGGGGCTGAGAAGGAGTGGGGTGACGGGATCCGAGGCCTGTCCCTGAGCGCTGCCCGC
TACGCGCTGTTGCGGCTGGAGGAGGGGCTCCTCACCAAGAACTGGCGGCCGACGCTGCTGGTGTCTGCTGAAG
CTGGACGAGGACCTCCACGTGAAGTACCCGCGGCTCCTACCTTCGCCTCCAGCTCAAGGCTGGCAAGGGCCTG
ACCATGTTGGTTCTGTATCCAGGGGAGCTTCTTGAGAGCTATGGCGAGGCTCAGGCGCCGAGCAGACCATC
AAGAACATGATGGAATGAGAAGGTGAAGGGCTTCTGCCAGGTGGTGGTGGCCAGCAAGGTGCGGGAGGGGCTG
GCCACCTCATCCAGTCTGTGGCCTGGGAGGCATGCGGCATAACTCCGTGGTGTGCTGGGCTGGCCCTACGGCTGG
CGACAGAGCGAGGACCCCCGTGCCTGGAAGACCTTCATTGACACCGTGCGCTGCACTACGGCTGCCACCTGGCC
CTGCTCGTGCCCAAGAACATCGCCTTCTACCCAGCAACCACGAGCGCTACCTGGAGGGCCACATAGACGTGTGG
TGGATCGTGCACGATGGTGGCATGCTCATGCTTCTGCCCTTCTGCTGCGCCAGCATAAGGTCTGGAGGAAGTGC
CGGATGCGCATCTTCACAGTGGCCCAGATGGATGACAACAGCATCCAGATGAAGAAGGACCTGGCTGTCTTTCTG
TACCATCTGCGCCTTGAAGCCGAGGTGGAGGTGGTGGAGATGCATAACAGTGACATCTCTGCATACACCTACGAG
CGGACGCTGATGATGGAGCAGCGGTGCGAGATGCTGCGGCAGATGAGACTGACCAAGACTGAGCGGGAGCGAGAA
GCCAGCTGGTCAAGGATCGGCACTCGGCCCTGAGGCTGGAGAGCCTGTACTCGGACGAGGAAGATGAGTCTGCA
GTGGGGGCTGACAAGATCCAGATGACGTGGACCAGGGACAAGTACATGACTGAGACCTGGGACCCAGCCATGCC
CCTGACAATTTCCGGGAGCTGGTGCACATTAAGCCGGACCAATCCAATGTGCGGCGCATGCACACTGCTGTGAAG
CTCAATGAAGTCATTGTACGCGCTCCACGACGCGCCGCTGGTTCTCTTAAACATGCCTGGCCACCCAGGAAC
AGTGAGGGCGACGAGAACTACATGGAGTTCCTCGAGGTGCTGACCGAGGGCCTTGAGCGGGTGCTGTTGGTGGC
GGTGGTGGCCGTGAAGTCATCACCATCTACTCTGAGGCCAGTGTCTATCTTGTGGCCTGGAGTCGAGGTCTTGGC
CAGGACATAACAAGCTGTGGTCTGGGGTAACAGCCTCTTCCAGCACCCACCTGCCAGCCCTGCTTGCCTGGCCC
TGCTCTGAGCCAGCTTTGCTAGGTCTCCTTGGAAACCAGGCCTGGGCTCAAATGGAGATGGATCCCAGGTCT
TGTGGGACCCTGGGATGTTTGGGGACTTTACTATCTAGCACCCAGTAGGCCTGTCTGGCCAGAGAAGACTGGT

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FIGURE 4581B

AGGGGCCGAGTGGGGTTTGAAGGCAGCCGGCCCGGCCAGCCAGGAGCGCTATTTATTGCATATTTATTGTTTG
GATGTCACCATCAGAGACGAAGGGAAGGGTAGCCAGGGAGGGAGTCCAGCCCAGCTGCCTGCAGGAAGATCTGGC
TCAGTCTACTATGGGCAGGGCCCCCACCAGCTGAGCCGAATGGAGACAGCTGAGCTGAGGCCTGACTTTTTCA
ATAAAACATTGTGTAGTTCTGGGCAA

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FIGURE 4582

MPHFTVVPVDGPRRGDYDNLEGLSWVDYGERAELDDSDGHGNHRESSPFLEASRGIDYYDRNLALFEEELDI
RPKVSSLLGKLVSYTNLTQGAKEHEEAESGEGTRRRRAEAPSMGTLMGVYLPCLQNI FGVLFLRLTWMVGTAGV
LQALLIVLICCCCTLLTAISMSAIATNGVVPAGGSYFMISRS LGPEFGGAVGLCFYLGTTFAAAMYILGAIEILL
TYIAPPAAIFYPG AHDTSNATLNNMRVYGTIFLTFMTLVVFVGKYNKFASLFLACV IISILSIYAGGIKSIF
DPPVFPVCMLGNRTLSRDQFDICAKTAVVDNETVATQLWSFFCHSPNLTTDSCDPYFMLNNVTEIPGIPGAAAGV
LQENLWSAYLEKGDIVEKHGLPSADAPSLKESLPLYVVADIATSF TVLVGIFFP SVTGIMAGSNRSGDLRDAQKS
IPVGTILAIITTSLVYFSSVVLFGACIEGVVLRDKYGDGVSRLNVVGT LAWPSPWVIVIGSFFSTCGAGLQSLTG
APRLQAI AKDNIIPFLRVFGHGKVNGEPTWALLLTALIAELGILIASLDMVAPILSMFFLMCYLFVNLA CAVQT
LLRTPNWRPRFKYYHWALSFLGMSLCLALMFVSSWYALVAMLIAGMIYKYIEYQGAKEWGDGIRGLSLSAARY
ALLRLEEGPPHTKNWRPQLLVLLKLDEDLHVKYPRLLTFASQLKAGKGLTIVG SVIQGSFLESYGEAQAAEQTIK
NMMEIEKVKGFCQVVVASKVREGLAHLIQSCGLGGM RHNSVVLGWPYGWRQSEDPRAWKTFIDTVRCTTA AHLAL
LVPKNIAFYPSNHERYLEGHIDVWWIVHDGGMLMLLPFLLRQHKVWRKCRMRIFTVAQMDDNSIQMKKDLAVFLY
HLRLEAEVEVVMHNSDISAYTYERTLMMEQRSQMLRQMRLTKTEREREAQLVKDRHSALRLESLSYDEEDES AV
GADKIQMTWTRDKYMTETWDPSHAPDNFREL VHIKPDQSNVRRMHTAVKLNEVIVTRSHDARLVLLNMPGPPRNS
EGDENYMEFLEVLTEGLERVLVVRGGGREVITIIYS

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FIGURE 4583

ATCGCCAGCCTCCAGTCTGCCTCCACGACGCGCCCTTCCCCAAGGCTGGCCGGGTCTGGATGTCGCCATCCCCCT
ATTGGGAGCTACAGACCTCGCAGCTGAACTCTTAAAAAGAACCTCGCTTCTTCCTCACGGTGCTCCAGCTCCACA
CACCGTACTGAGCCTCGCCAGCCACCGTACGCGAGGTGCGGCGCGTCCGTGACGTCACTGATGTGCGCTTCTCC
CGCACTAAGGGAAACATGGCTCTAACGCGGCCGGTGC GGCTCTTTTCCCTCGTGA CTGCGGTGCTCTGGCGCCG
CGACGGGGCCTCACGGTCCGCAGTCCCGACGAACCCCTGCCGGTGGTGC GCATCCCAGTGGCTCTACAGCGGCAG
TTGGAACAGCGGCAGAGCAGGCGGCGGAACCTCCCGAGGCCGGTGTGGTTGACCCGGACCGCTGCTGGTTTCG
GCGCGGCGGCCGGAGTTGAACCAGCCGGCGCGCTCACACTGGGCCGTGGGAGCGCGCGCCGCTAGCCTCTCAA
GGCTGGAAGAGTCGACGCGCGCGTCCGGGACCATTCTCCATCGAGCGCGCGAACAGGAGCGCCAGCGGTGCGA
AAGCTCTCGTCTAAGGGCAGCTTTGCTGACCTGGGCCTGGAGCCCCGTGTGTGTCACGCACTACAGGAGGCTGCG
CCTGAAGTCGTTAGCCCCACAACCGTGCAGTCTAGCACCATCCCCCTACTACTTCGCGGCCGCCATGTGCTTTGC
GCCGAGAAACCGGCAGTGGCAAGACTCTCAGCTACCTCCTGCCGTGCTTCAACGGCTCTTGGGCCAGCCAAGC
CTGGACTCCCTTCTATCCCCGCGCCCCGAGGCCTGGTCTTGTTCCTTCCCGAGAAATTGGCCCAACAGGTGCGG
GCTGTGGCCCAACCTTTGGGCCGCTCCTTGGGCCGTGCTGGTGC GGGACCTGGAGGGAGGCCACGGCATGCGTAGG
ATCAGGCTGCAGCTGTCCAGACAGCCTTCAGCAGATGTGCTTGTGGCCACTCCAGGGGCTCTGTGGAAGGCCCTG
AAAAGTCGACTGATCAGTCTGGAGCAACTCTCCTTCTTGGTGTGGATGAGGCAGACACACTGCTGGATGAAAGC
TTCCTGGAAGTGGTGGACTACATCTTAGAGAAGAGCCACATAGCAGAAGGCCAGCTGACTTGGAAGACCCCTTC
AATCCCAAAGCTCAGTTAGTGCTGGTAGGAGCCACATTTCCCGAAGGTGTAGGCCAGTTGCTGAATAAAGTCGCC
AGCCCAGATGCTGTCAACCACCATCACCAGCTCCAAGCTCCACTGTATCATGCCTCATGTGAAACAGACATTTCTG
AGACTGAAGGGAGCAGATAAGGTGGCCGAGCTGGTGCACATCCTCAAGCATCGTGACAGAGCAGAAAGGACTGGT
CCCTCAGGAAGTGTCTGGTGTCTGTAAATAGCTCCAGCACTGTGAAGTGGCTGGGATATATTCTGGATGACCAC
AAAATCCAACACCTAAGGTTGCAGGGGCAAATGCCAGCCTTGATGAGGGTAGGAATCTTCCAGTCCCTCCAGAAG
AGCTCCCGAGACATACTTCTCTGCACAGACATAGCCTCTCGGGGCCCTGGACAGCACTGGTGTGGAGCTGGTTGTC
AATTATGATTTCCCCCAACGCTGCAAGATTACATCCACAGAGCAGGGAGAGTGGGCCGTGTGGGGAGCGAGGTG
CCAGGCACCGTCATCAGTTTTGTGACCCATCCCTGGGATGTGAGCCTGGTTCAGAAGATTGAGCTGGCGGCTCGC
CGAAGGAGAAGTCTTCCAGGACTAGCATCCTCGGTGAAAGAGCCTTTGCCCCAAGCAACCTGATTTTGACAAATC
TGATTAAAATGTGATGCTAGAACAGGGATCTTTCCAGTATCTTGAGTGGGTGACCACACTTGTGAGTGGGAGGC
TCTGGGCTGCCCTGTGGCTCCTTGAGGGCGGGATGAACTGCTTTGTGACTTGGAAGGTACGCTGCTGGCCAGC
ATTGGAGAAGAAGCTGCTGAGCATGGCTTTCTGTAGTCTTTAGCAAGACACAAGTGGATTTTGA TTTGTATCAT
GTCATGATTTCTAACAATAAATGATGTTTTTATGTGC

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[illegible]

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FIGURE 4585

MILNSLSLCYHNKLILAPMVRVGTLPMLLLALDYGADIVYCEELIDLKMIQCKRVVNEVLSTVDFVAPDDRNVFR
TCEREQNRVVFQMGTSDAERALAVARLVENDVAGIDVNMGCPKQYSTKGGMGAALLSDPKIEKILSTLVKGTRR
PVTCKIRILPSLEDTLVLKRIERTGIAAIAVHGRKREERPQHPVSCEVIKAIADTLSIPVIANGGSHDHIQQYS
DIEDFRQATAASSVMVARAAMWNPSIFLKEGLRPLEEVMQKYIRYAVQYDNHYTNKYCLCQMLREQLESPOGRL
LHAAQSSREICEAFGLGAFYEETTQELDAQARLSAKTSEQTGEPAEDTSGVIKMAVKFDRRAYPAQITPKMCLL
EWCRRKLAQPVYETVQRPLDRLFSSIVTVAEQYQSTLWDKSKKLAEQAAAIVCLRSQGLPEGRLGEESPSLHK
RKREAPDQDPGGPRAQELAQPGDLCKKPFVALGSGEESPLEGW

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FIGURE 4586A

CGGCTGCGGTTCTTGGTGCTGCTCGGCGCGCGGCCAGCTTTCGGAACGGAACGCTCGGCGTTCGCGGGCCCCGCCC
GGAAAGTTTGCCGTGGAGTCGCGACCTCTTGCCCCGCGCGGCCCGGCATGAAGCGGCGTTGAGGAGCTGCTGCCG
CCGCTTGCCGTGCCGCCGCCGCCCTGAGGAGGAGCTGCAGCACCTTGGGCCACGCCGATGACTACTGCAAAC
TGTGGCGCCCACGACGAGCTCGACTTCAAACCTGCTCTTTGGCGAGGACGGGGCGCCGGCGCCGCCGCCCGGGC
TCGCGGCTGCGAGATCTTGAGCCAGATGATTGTGCATCCATTTACATCTTTAATGTAGATCCACCTCCATCTACT
TTAACCACACCACTTTGCTTACCACATCATGGATTACCGTCTCACTCTTCTGTTTTGTCAACATCGTTTTAGCTC
CAAAGTCACAAAACTATGAAGGAACCTGTGAGATTCTGAATCTAAATATAGCCATTAGGTGGTCCCAAACCC
TTTGAGTGCCCAAGTATTCAAATTACATCTATCTCTCTAACTGTCAATGAAGCTGCAGCCGATTTACCCTT
CTACAGATAAATGACCCAGAACGGGAATTTTGGAAAGGCCCTTCTAGAGATCATCTCTATCTTCTCTTGAGCCA
TCCTACCGGGAGTCTTCTCTTAGTCTTAGTCTGCCAGCAGCATCTCTTCTAGGAGTTGGTTCTCTGATGCATCT
TCTTGTAATCGTTTTACATATTTATGATGATGTGGACTCAGAGTTGAATGAAGCTGCAGCCGATTTACCCTT
GGATCCCCCTCTGACTTCTCTGGTGGCTCTCCAGGGGGCTGCCCTGGAGAAGAACTTGGCATCAACAGTATGGA
CTTGACACTCATTATCACCCAGGCAATCTCCTTGCCACTCTCCTAGATCCAGTGTCACTGATGAGAATTGGCTG
AGCCCCAGGCCAGCCTCAGGACCCTCATCAAGGCCACATCCCCCTGTGGGAAACGGAGGCACTCCAGTGCTGAA
GTTTGTTATGCTGGGTCCCTTTCACCCCATCACTCACCTGTTTCTTACCTGGTCACTCCCCCAGGGGAAGTGTG
ACAGAAGATACGTGGCTCAATGCTTCTGTCCATGGTGGGTGAGGCCCTTGGCCCTGCAGTTTTTCCATTTCAGTAC
TGTGTAGAGACTGACATCCCTCTCAAAACAAGGAAAACTTCTGAAGATCAAGCTGCCATACTACCAGGAAAAATTA
GAGCTGTGTTTCAAGTACCAAGGGAGTTTATCACCAGCCCGGGAGACTTCAATAGATGATGGCCTTGGATCTCAG
TATCCTTTAAAGAAAGATTATGTGGTGATCAGTTTCTTTCAGTTCTTTCACCTTTTACCTGGAGCAAACCAAAG
CCTGGCCACACCCCTATATTTGCGACATCTTCAATACCTCCACTAGACTGGCCTTTACCAGCTCATTTTGGACAA
TGTGAACCTGAAAATAGAAGTGCAACCTAAACTCATCATCGAGCCATTATGAAACTGAAGGTAGCCGAGGGGCA
GTAAAAGCATCTACTGGGGGACATCCTGTTGTGAAGCTCCTGGGCTATAACGAAAAGCCAATAAATCTACAAATG
TTATTGGGACAGCAGATGATCGATATTTACGACCTCATGCATTTTACCAGGTGCATCGAATCACTGGGAAGACA
GTCGCTACTGCAAGCCAAGAGATAAATAATTGCCAGTACAAAAGTTCTGGAAATTCCACTTCTTCTGAAAATAAT
ATGTCAGCCAGTATTGATTGTGCAGGTATTTGAAACTCCGCAATTCAGATATAGAAGTTGAAAAGGAGAACT
GATATTGGCAGAAAGAATACTAGAGTACGACTTGTGTTTCGTGTACACATCCCACAGCCAGTGGAAAAGTCTT
TCTCTGCAGATAGCCTCTATACCCGTTGAGTGCTCCAGCGGTCTGCTCAAGAACTTCTCATATTGAGAAGTAC
AGTATCAACAGTTGTTCTGTAATGGAGGTGATGAAATGGTTGTGACTGGATCTAATTTTCTTCCAGAAATCCAAA
ATCATTTTCTTGAAAAGGACAAGATGGACGACCTCAGTGGGAGGTAGAAGGGAAGATAATCAGGGAAAAATGT
CAAGGGGCTCACATTGTCTTGAAGTTCTCCATATCATAACCCAGCAGTTACAGCTGCAGTGCAGGTGCACCTT
TATCTTTGCAATGGCAAGAGGAAAAAAGCCAGTCTCAACGTTTACTTATACACCAGTTTGTATGAAGCAAGAA
CACAGAGAAAGAGATTGATTTGTCTTCAGTTCCATCTTTGCCTGTGCCTCATCTGCTCAGACCCAGAGGCCTTCC
TCTGATTCAAGGTGTTTACATGACAGTGTACTGTGAGGACAGAGAAGTTTGATTTGCTCCATCCCACAAACATAT
GCATCCATGGTGACCTCATCCCATCTGCCACAGTTGCAGTGTAGAGATGAGAGTGTATAGTAAAGAACAGCATATG
ATTCCTTCTCCAATTGTATACACCAGCCTTTTCAAGTCAACCAACACCTCCTGTGGGGTCTTCTATCAGCCTATG
CAAATAATGTTGTGTACAATGGACCAACTTGTCTTCTTATTAATGCTGCCTCTAGTCAAGAATTTGATTTCAGTT
TTGTTTCAGCAGGATGCAACTCTTCTGGTTTAGTGAATCTTGGCTGTCAACCACTGTCAATCCATACCAATTCAT
TCTTCAAATTCAGGCTCAACAGGACATCTCTTAGCCCATACACCTCATTCTGTGCATACCCTGCCTCATCTGCAA
TCAATGGGATATCATTGTTCAAATACAGGACAAAGATCTCTTCTTCTCCAGTGGCTGACCAGATTACAGGTGAG
CCTTCTCTCAGTTACAACCTATTACATATGGTCTTTCACATTGAGGTCTGCTACAACAGCTTCCCCAGCAGCT
TCTCATCCCTTGGCTAGTTACCCGCTTCTGGGGCCACCATCTCCTCAGCTTCAGCCTATGCCTTACCAATCTCCT
AGCTCAGGAACCTGCCTCATCACCCTCTCCAGCCACCAGAATGCATTCTGGACAGCACTCAACTCAAGCACAAAGT
ACGGGGCCAGGGGGGTCTTCTGCACCTTCATCCTTAATATGTACAGTTTGTGTGATCCAGCGTCATTTCCACCT
GATGGGGCAACTGTGAGCATTAACCTGAACCAGAAGATCGAGAGCCTAACTTTGCAACCATTTGGTCTGCAGGAC
ATCACTTTAGATGATGACCAATTTATATCTGACTTGGAAACACCAGCCATCAGGTTTCAGCAGAGAAATGGCCTAAC
CACAGTGTGCTCTCATGTCCAGCTCCTTTCTGGAGAATCTAGAGGTGAACGAGATAATTGGGAGAGACATGTCCC
AGATTTCTGTTTTCCCAAGGAGCAGGGGTGAGCAGGCAGGCTCCCCCTCCCGAGTCTGAGTCCCTGGATTTAGGAA
GATCTGATGGGCTCTAACAGTGTCTTACTGCAGCCTTGTGTCCACCACCAACTTCTCAGCATGTTTTCTCTCTTGG

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FIGURE 4586B

ACCTTGGGTTTCCAACCTCTGCAGCCTTCAGGTCTGGGGCCAGGAGTGGGACCCACCATTTGTGGGGAAAGTAGCA
TTCCTCCACCTCAGGCCTTGGGTAGATTTGGCAAAAGAACAGGAGCAGCATAGGCTGTTTGAGCTTTGGGGAAAT
GAACTTTGCTTTTTATATTTAACTAGGATACTTTTATATGATGGGTGCTTTGAGTGTGAATGCAGCAGGCTCTCT
TGTTCGAGGTGCTGCTTTTGCAGGTGACCTGGTTACTTAGCTAGGATTGGTGATTTGTACTGCTTTATGGTCA
TTTGAAGGGCCCTTTAGTTTTTATGATAATTTTAAAATAGGAACTTTGTATAAGACCTTCTAGAAGCC

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FIGURE 4587

MTTANCGAHDELDFKLVFGE DGAPAPPPPGSRPADLEPDDCASIYIFNVDP PPSTLTTPCLPHHGLPSHSSVLS
PSFQLQSHKNYEGTCEIPESKYSPLGGPKPFECPSIQITSISPNCHQELDAHEDDLQINDPEREFLE RPSRDHLY
LPLEPSYRESSLSPSPASSISSRSWFSDASSCESLSHIYDDVDSELNEAAARFTLGSPLTSPGGSPGGCPGEETW
HQQYGLGHSLSRQSPCHSPRSSVTDENWLSRPASGPSSRPTSPCGKRRHSSAEVCYAGSLSPHHSVPVSPGHS
PRGSVTEDTWLNASVHGGSGGLGPAVFPPQYCVETDIPLKTRKTS EDQAAILPGKLELCSDDQGSLS PARETSIDD
GLGSQYPLKKDSCGDQFLSVPSPTWSKPKPGHTPIFR TSSLPLDWPLPAHFGQCELKIEVQPKTHHRAHYETE
GSRGAVKASTGGHPVVKLLGYNEKPINLQMF IG TADDRYL RPHAFYQVHRITGKT VATASQEII IASTKVLEIPL
LPENNMSASIDCAGILKLNSDIELRKGETDIGRKNTRVRLVFRVHIPQPSGKVL SLQIASIPVECSQ RSAQELP
HIEKYSINSCSVNGGHEMVVTGSNFLPESKIIIFLEKGQDGRPQWEVEGKIIREK CQGAHIVLEVPPYHNPAVTAA
VQVHFYLCNGKRKKSQSQRFTYTPVLMKQEHREEIDLSSVPSLPVPHPAQTQRPS SDSGCSHDSVLSGQ RSLICS
IPQTYASMVTSSHLPQLQCRDESVSKEQHMI P SPIVHQPFQVTPFPV GSSYQPMQTNVYNGPTCLP INAASSQ
EFDSVLFQQDATLSGLVNLGCQPLSSIPFHSSNSGSTGHLLAHTPHSVHTLPHLQSMGYHCSNTGQ RSLSSPVAD
QITGQPSSQLQPIITYGPHSGSATTASPAASHPLASSPLSGPPSPQLQPM PYQSPSSGTASSP SPATRMHSGQHS
TQAQSTGQGLSAPSSLICHSLCDPASFPD GATVSIKPEPEDREP NFATIGLQDITLDDDQFISDLEHQPSGSA
EKWPNH SVLSCPAFWRI

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FIGURE 4588A

GGCACGAGGGGCACCATTTGGATGCTTACTTTTCAGGTGAGCAGGACCCAGCCTGACTTGCCAGCTACCACTTATGAT
TCAGAGACTAGGAATCCTGTATCTGAAGAGTTGCAGGTGTCTAGTAGTTCTGATTCTGACAGTGACAGCTCTGCA
GAGTATGGAGGGGTTGTTGACCAGGCAGAGGAATCTGGAGCTGTCAATTTTAGAAGAGCAACTAGCAGGTGTCTCA
GCAGAGCAAGAAGTTACATGTATCGATGGAGGCAAGACCCCTCCCCAAACAGCCATCTCCCCAGAAGTCTGAGCCT
CTGCTACCTTCTGCTTCTATGGATGAGGAAGAAGGGGACACTTGTACAATATGTCTGGAACAGTGACCAATGCT
GGGGACCACCGGCTCTCAGCATTACGCTGTGGGCATCTCTTTGGGTATAGGTGCATTTCCACGTGGCTTAAAGGA
CAAGTACGAAAATGTCCCCAGTGCAACAAGAAAGCCAGGCACAGTGACATTGTCTGTCCTTTATGCCCGAACCCCTG
AGAGCTTTGGACACTAGTGAACAGGAGCGCATGAAAAAGTTCCCTACTGAAGGAACAGATGCTAAGGAAACAGGCC
GAGTTAGAATCAGCACAGTGCCGACTCCAACCTGCAGGTCTCTACTGATAAGTGCACTAGGCTTCAAAGGCGTGT
CAGGACTTGCAAAAACCTTACGTCACATCAAAGTCAGAATTTACAGCAACCCAGGGGCTCCCAAGCATGGGTCTCTG
AGCTGCTCACCCCTCCAGCCAGGGCCAGCACAAAGCACAAAGTACCACTTCCAAAAGACCTTACAGTATCTCAGGCA
GGAAACTGCCGGATCATGGCATACTGTGATGCTCTGAGCTGCCTGGTGATATCACAGCCTTCTCTCAGGCCTCT
TTTCTTCCAGGCTTTGGTGTTAAGATGTTGAGTACTGCCAATGAAGAGCAGTCAGTACATTCCGATGCATGGC
AAACAGATCCGTGGACTGGCGTTTAGCAGTTACCTCAGAGGCTTGCTACTCTCTGCTTCCCTAGACAACACTATT
AACTGACCAGCCTGGAGACAAATACCGTGGTCCAGACTTATAATGTCTGGACGTCTGTCTGGAGCTGTTGCTGG
TGTCTTGATGAGGCTAACTACATCTATGCTGGACTGGCCAATGGTTCAATTCTGGTATATGACGTGCGAAACACG
AGCAGTCATGTGCAGGAGTTAGTAGCTCAGAAAGCCAGATGCCCACTGGTCTCCCTGTCTATACATGCCCAGAGCT
GCCTCAGCTGCATTTCCATATGGTGGGTGCTGGCTGGAAACCTTGAGGATGCTTCATTCTGGGAACAGAAAATG
GACTTTTCTCATTTGGCCTCATGTCTGCCCTTGGAGCCAGGGGCTGCATAGACTTTCAGACAGAGAACAGCTCC
CGGCACTGTCTTGTGACCTACAGGCCGTGATAAAATCACACCACCATACGAAGTGTGCTGATGGAAATGTCCTAC
CGACTGGATGACACTGGAAATCCAATCTGCTCCTGCCAGCCTGTACATACATTTTTTGGAGGACCTACTTGCAAA
CTATTGACCAAAAATGCCATTTTCCAAAGCCAGAGAATGATGGCAACATCCTGGTGTGTACTGGGGATGAAGCA
GCAAATCTGCCCTGCTGTGGGATGCTGCCAGTGGCTCGTTGCTCCAGGACCTACAGACCGATCAGCCTGTGTTG
GACATCTGCCCATTTGAGGTGAACCGTAACAGCTACTTGGCTACCTTAACAGAGAAGATGGTCCACATCTATAAG
TGGGAGTGAAGTGTGGTCTCGAAACCTTGAAGGCATGCTGCTGGTTAGATGTTGTTTGTAGCGCCTAGCAGCCCC
AAGCAAGATCCCTGTTTATTGTCTGCAGTCTAGAACATTGGGAATCATGGTTTGTGTTGCTAGCGCCTAGCAGCCCC
GACCCTAGGTCACTGAGACACTACAGATTGTGTATCTGTTATGTCCACTAAAAGAGTAATTGATGGGTACTTTAT
CTACATTATCCATTTCTTGGGTTTAAAGCCTTCATTAACCATATTGTATGTTGGAATTTCTATTTTCTTTATT
TTCTGTGTGACTTTCTGGACCTTAGAGAGTGTCTCTCATCATCTAGGATGTGAGTGGGCATCAAGCATTTTCTG
GGGAATATGACATCCCATCTGAGTTGCTCTGCTACTTAAGTATCCCTGAAGGGACTAACCATCGTCTTGGTACTG
ATTTGATGCAACGTAGATGTAAAAGAGTATTATTAGTTGAACACAAGAGGGCAGTGTAGAACCTTGTGTCCGGT
TTATTTCTGACCTTGAAGGCTGACAACTTTTAGTAACTTGTCTCATCTCCACACAAGTGTGTGATGACACACT
GGGTGTGCTTTGTGGCAATAACACTTGTGTTCCAGGTGTGAAGTGTGGGACATTGGCAGGCCAGTGTGAAG
CAGCTAGTGAACGATTCCCTTTGCTAATGCCTAGTGCATTAAAGTTCATTGCTTTGCGAAAGGTAAGGAAAGAGGC
CAGTTGTTTGAGCGGTGGGGAAGATTTTGTTTTTTCTAGCCAGCTTAGGATCTCAGGATTGGTTTTATCCAAGCT
AGTGCTTTGAAGAACACTATCTCTTGCCAGGAAAAAGATGAGTGATAGGTCAAAGCTTTTACTTGAGTCTCCCTA
GTGTCAGAGATCAGGAGAAAAGACATAAGAGAAATTTACAAAAGCTATTTCAGACTGCTATTGAAAACATGAGAAGA
ACTTGTCTCCCATTTTGAGAGTTCCTATCTAAATAAAGCCAATTCCTCAGACTGAGGGGCTGTTCTTAAGTGTTT
TTTATACATTCCAGTTATCCAGTTAAAGCCTTCCCCATGTGAAGCTGATGTTTGATTCCAGTTTCTTTGATTTG
CCTCCCTAACCTTTTCTAGGGCTCAGTTTGTATTTCTTTGCCTTGCTCAGACTACTTTGCCAACCCTTCCAC
AACAGAATATGCTTCAAGATGTGGGCAGGTGCTGCTGTTTATGGGAGAAAATGGCTTAACAGTCTGATTTTCT
TCAAATGATTATTGAAGAGTTGTTATCGTTTTTATTATAAAACACTTCTGACCTGTCAATTCAAGAGCTGTTTCT
AGGATCTTTCTCTCCGGCAAGGGGTTGTTGCACTAGATTTCCCCAGAGTTCCAAGTCTAGTTGTGCTTTTTAAT
GACCCTTTAATATTTTAGGACATAATTTTTCTTTTTTAAATTTTTTGTAGAAATAGATGTTTCACTACGTTG
TCCAGGCTGGTCTTGGACTCCTGGCCTCAAGCAATCTCCACCTCAGCCTCTAAAGTGCCAAAATTATAGGCG
TGAGCCACTGCACCCGGCCCTATTTGAAGACGTCTTTTGTAAAAGCTAGCTTCTAGAACCTGAGAAAAGCTCTT
TTCTCAGAGGAGATACTCTTTTGATATGTTAATGATTAAGAGTGGTTGCCAGGCCTAGTTTCAGTGGCAGAAT
AGGATTGGAATTAAGGAGCAGAACTCATCTGGCTTCAGCAGATTGCCACCAAGAGGATACAGGTGGTCAAGTCTC

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FIGURE 4588B

GGCTGGCTTTGTCTTTGGGCCTGGGCAGGCTTAGGATTGACTTTCTTTGAAGTACCTGATGCTGATTGATTCCA
CTAATAGTAGGAAGCAAGAGACTTAACTATGAGGGACGTTATGTGAATCTTAAGTCTTACCAGTCCTTGCATTAG
TACATTAAATTTGGATGTTTTGGAAGCAAATTCATACGATCGTGAGTGATTCTCCAAAGAAAAAAGCCTTGTC
CAGCCTGACCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAATTAAGTGGGTGCAGTGGTGCGCATGCC
TGTAAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCCTGGGAGGCAGAGGTTGCAGTGAGTCG
AGATCGCGCCACTGCACTCCAGCCTCGGTGACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 4589

MKSSLLKEQMLRKQAELESAQCRLQLQVLTDKCTRLQRRVQDLQKLTSHQSQNLQQPRGSQAWVLSCSPSSQGQH
KHKYHFQKTFTVSQAGNCRIMAYCDALSCLVISQPSPQASFLPGFGVKMLSTANMKSSQYIPMHGKQIRGLAFSS
YLRGLLLSASLDNTIKLTSLETNTVVQTYNAGRPVWSCWCLDEANYIYAGLANGSILVYDVRNTSSHVQELVAQ
KARCPLVSLSYMPRAASAAFPYGGVLAGTLEDASFWEQKMDFSHWPHVLPLEPGGCIDFQTENSSRHCLVTYRPD
KNHTTIRSVLMEMSYRLDDTGNPICSCQPVHTFFGGPTCKLLTKNAIFQSPENDGNILVCTGDEAANSALLWDAA
SGSLLQDLQTDQPVLDICPFEVNRNSYLATLTEKMHYKWE

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FIGURE 4590

ATGAACTTCACCACTCGCTCCACCTTCTCCACCAACTACC¹GGTCCCTGGGCTTTGTCCAGGCGCCCAGCTACAGT
GCCCCGGCCAGTCAGCAGCATGGCCAGCGTCTATGCAGGCACCAGGGGCTCTGGTTCCTGGATCTCCATGTCCCAC
TCCGCCAGCTTCTGGGGCGGCATGGGGTCTGGGGGCTGTCCGCGGGGATGGCTGGGGGTCTTGCAAGAATGGGA
GGCATCCAGAACAAGAAGGAGACCATGCAAAGCCTGAAGTACTGCCTGACCTCCTACCTGAACACAGTGAGGAAC
CTGGAGATGGAGA²ACTGGAAGCTAGAGAGCAAAATCCGGGAGCACCTGGAGAAGAAGGGACCCAGTTTCAGAGAC
TGGAGCCGTTACTTCCAGACCATCAAGGACCTGAGGGCTCAGATCTTCGCAAATACTGTGGACAATGCCTGCATC
GTTCTGCAGATTGACAGTGCCCGTCTTGCAGCTGATGATTTTAGATCTGTGGAGAATGACATCCATGGGCTCTGC
AAGGTCATTGATGACACCAAGTGTCACTTGGCTGCAGCTGGAGACAGAGATCAAGGCTCGCAAGGAAGAGCTGCTC
TTCATGAAGAAGAACCACGGAGAGGAAGTAAAAGGCCTACAAGCCCAGATTGCCAGCTCTGGGTTGACCTTGGAG
GACCTCGCCAAGATCATGGCAGACATCTGGGCCCAATATGACAAGCTGGCTCGGAAGAACAGAGAGGAGCTGGAC
AAGTACTGGTCTCAGCAGATTGAGGAGAGCACCACGGTGGTCACCACGCAGTCCGTCAAGGTTGGAGCTGCTGAG
ACGACACTCACGGAGCTGAGATATACAGTCCAGTCCTTGGAGACTGACCTGGACTCAATGAGAAATCTGAAGGCC
AGCTTGGAGAACAGCCTGAGGGAGGTGGAGGCCCGCTACACCCTGCAGATGGAGCAGCTCAACGGGATCCTGCTT
TACCTGGAGTCAGAGCTGGCACAGACCCGGGCAGAGGGGTCTTCTTACTGATGTGTTGCTCTTCTTCATGGCTC
GTGAA³AACTATTAGAGTCATCCAAGATTCTAAGTTCCTGACTCAGAAATCTTACTGTTGTGAACCTTTACACCCAG
GTTTGGAGACAGAAAGGAGCACCGCCAAGTGAGGCAGAGCAGTCTCAGAAACATAGGAAAATGGTGGGAAGAGAG
ATCAGCAACGTTAACTGGGTGTCAAGAAAACATACCGAGATTGAAGCCATCCACTTCTGCAGGAACACCGAAAAG
AAAGGTACAACGCTTGGGGAAAGACTGGATTTCATTAGGGACAGTGACAATACCTGTTTGACATAG

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FIGURE 4591

MNFTTRSTFSTNYRSLGFVQAPSYSARPVSSMASVYAGTRGSGSWISMSHSASFWGGMGSGGLSAGMAGGLARMG
GIQNKKETMQSLKYCLTSYLN TVRNLE MENWKLESKIREHLEKKGPQFRDWSRYFQTIKDLRAQIFANTVDNACI
VLQIDSARLAADDFRSVENDIHGLCKVIDDTSVTWLQLETEIKARKEELLFMKKNHGEEVKGLQAQIASSGLTLE
DLAKIMADIWAQYDKLARKNREELDKYWSQQIEESTTVVTTQSVKVGAAETTLTELRYTVQSLETDLDSMRNLKA
SLENSLREVEARYTLQMEQLNGILLYLESELAQTRAEGSFLLMCCSSSWLVKTIIRVIQDSKFLTQNLTVVNLYTQ
VWRQKGAPPSEAEQSQKHRKMVGREISNVNWVSRKHTEIEAIFCRNTEKKGTTLGERLDFIRSDNTCLT

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FIGURE 4592A

ATAATGGCCGCTTTCAAGGTGTGGATTTTGGCTCCTTGAGCCTGTCTGAGCGAGGGGTGGCAGCGCCGGCGCCCC
AGAATCCGGGACAGAAGGGTCCCAAGAGTCGCGCTTGGTGAGAGAAATCCCAGATCCTGTGATGGGGGACACCAG
TGAGGATGCCTCGATCCATCGATTGGAAGGCACTGATCTGGACTGTCAGGTTGGTGGTCTTATTTGCAAGTCCAA
AAGTGCGGCCAGCGAGCAGCATGTCTTCAAGGCTCCTGCTCCCCGCCCTTCATTACTGGGACTGGACTTGCTGGC
TTCCCTGAAACGGAGAGAGCGAGAGGAGAAGGACGATGGGGAGGACAAGAAGAAGTCCAAAGTCTCCTCTACAA
GGACTGGGAAGAGAGCAAGGATGACCAGAAGGATGCTGAGGAAGAGGGCGGTGACCAGGCTGGCCAAAATATCCG
GAAAGACAGACATTATCGGTCTGCTCGGGTAGAGACTCCATCCCATCCGGGTGGTGTGAGCGAAGAGTTTTGGGA
ACGCAGTCGGCAGAGAGAGCGGGAGCGGAGGGAACATGGTGTCTATGCCTCGTCCAAAGAAGAAAAGGATTGGAA
GAAGGAGAAATCGCGGGATCGAGACTATGACCGCAAGAGGGACAGAGATGAGCGGGATAGAAGTAGGCACAGCAG
CAGATCAGAGCGAGATGGAGGGTCAGAGCGTAGCAGCAGAAGAAATGAACCCGAGAGCCACGACATCGACCTAA
AGATGCAGCCACCCCTTCAAGGTCTACCTGGGAGGAAGAGGACAGTGGCTATGGCTCCTCAAGGCGCTCACAGTG
GGAATCGCCCTCCCCGACGCCCTTCTATCGGGATTCTGAGCGGAGCCATCGGCTGTCCACTCGAGATCGAGACAG
GTCTGTGAGGGGCAAGTACTCGGATGACACGCCCTCTGCCAACTCCCTCCTACAAATATAACGAGTGGGCCGATGA
CAGAAGACACTTGGGGTCCACCCCGCCTCTGTCCAGGGGGCCGAGGAAGACGTGAGGAGGGCGAAGAAGGAATTTT
ATTTGACACGGAGGAGGAGCGGCAGCAGTGGGAAGATGACCAGAGGCAAGCCGATCGGGATTGGTACATGATGGA
CGAGGGCTATGACGAGTTCACAAACCCGCTGGCCTACTCCTCCGAGGACTACGTGAGGAGGCGGGAGCAGCACCT
GCATAAACAGAAGCAGAAGCGCATTTCAGCTCAGCGGAGACAGATCAATGAGGATAACGAGCGCTGGGAGACAAA
CCGCATGCTCACCAGTGGGGTGGTCCATCGGCTGGAGGTGGATGAGGACTTTGAAGAGGACAACGCGGCCAAGGT
GCATCTGATGGTGCACAATCTGGTGCCCTCCCTTTCTGGATGGGCGCATTTGTCTTACCAAGCAGCCGGAGCCGGT
GATTCAGTGAAGGATGCCACTTCTGACCTGGCCATCATTGCTCGGAAAGGCAGCCAGACAGTGGGAAGCACAG
GGAGCAGAAGGAGCGCAAGAAGGCTCAGCACAAACACTGGGAACCTGGCGGGACCAAACCTGGGAGATATAATGGG
CGTCAAGAAGGAGGAAGAGCCAGATAAAGCTGTGACGGAGGATGGGAAGGTGGACTACAGGACAGAGCAGAAGTT
TGCAGATCATGAAAGAGAAAAGCGAAGCCAGCAGTGAATTTGCAAAGAAGAAGTCCATCCTGGAGCAGAGGCA
GTACCTGCCCATCTTTGCAGTGCAGCAGGAGCTGCTCACTATTATCAGAGACAACAGCATCGTGATCGTGGTTGG
GGAGACGGGGAGTGGTAAGACCACTCAGCTGACGCAGTACCTGCATGAAGATGGTTACACGGACTATGGGATGAT
TGGGTGTACCCAGCCCCGGCGTGTAGCTGCCATGTCAGTGGCCAAGAGAGTCAGTGAAGAGATGGGGGAAACCT
TGGCGAGGAGGTGGGCTATGCCATCCGCTTTGAAGACTGCACCTCAGAGAACACCTTGATCAAATACATGACTGA
CGGGATCCTGTCTCGAGAGTCCCTCCGGGAAGCCGACCTGGATCACTACAGTGGCATCATCATGGACGAGGCCCA
CGAGCGCTCCCTCAACACTGACGTGCTCTTTGGGCTGCTCCGGGAGGTAGTGGCTCGGCGCTCAGACCTGAAGCT
CATCGTCACATCAGCCACGATGGATGCGGAGAAGTTTGTCTGCCCTTTTTGGGAATGTCCCACATCTTCCACATCCC
TGGCCGTACCTTCCCTGTGTGACATCCTCTTCAAGAACACCCACAGGAGGATTACGTGGAGGTGCAGTGAAGCA
GTCCTTGCAAGTGCACCTGTGCGGGGCCCCCTGGAGACATCCTTATCTTCATGCCTGGCCAAGAGGACATTGAGGT
GACCTCAGACCAGATTGTGGAGCATCTGGAGGAACCTGGAGAACGCGCCTGCCCTGGCTGTGCTGCCCATCTACTC
TCAGCTGCCCTTCTGACCTCCAGGCCAAAATCTTCCAGAAGGCTCCAGATGGCGTTCCGAAGTGCATCGTTGCCAC
CAATATTGCCGAGACGTCTCTCACTGTTGACGGCATCATGTTTGTTATCGATTCTGGTTATTGCAAATTAAGGT
CTTCAACCCAGGATTGGCATGGATGCTCTGCAGATCTATCCCATTAGCCAGGCCAATGCCAACCAGCGGTCAGG
GCGAGCCGGCAGGACGGGCCCAGGTCAGTGTTCAGGCTCTACACCCAGAGCGCCTACAAGAATGAGCTCCTGAC
CACCACAGTGCCCGAGATCCAGAGGACTAACCTGGCCAACGTGGTGCTGCTGCTCAAGTCCCTCGGGGTGCAGGA
CCTGCTGCAGTTCCACTTCATGGACCCGCCCCGGAGGACAACATGCTCAACTCTATGTATCAGCTCTGGATCCT
CGGGGCCCTGGACAACACAGGTGGTCTGACCTCTACCGGGCGGCTGATGGTGGAGTTCCTCGCTGGACCTGCCCT
GTCCAAGATGCTCATCGTGTCTGTGACATGGGCTGCAGCTCCGAGATCCTGCTCATCGTTTCCATGCTCTCGGT
CCCAGCCATCTTCTACAGGCCCAAGGGTCGAGAGGAGGAGAGTGATCAAATCCGGGAGAAGTTCGCTGTTCTGTA
GAGCGATCATTTGACCTACCTGAATGTTTACCTGCAGTGGAGAACAATAATTACTCCACCATCTGGTGTACGA
TCATTTTCATCCATGCTAAGGCCATGCGGAAGGTCCGGGAGGTGCGAGCTCAACTCAAGGACATCATGGTGCAGCA
GCGGATGAGCCTGGCCTCGTGTGGCACTGACTGGGACATCGTCAGGAAGTGCATCTGTGCTGCCATTTTCCACCA
AGCAGCCAAGCTCAAGGGAATCGGGAGTACGTGAACATCCGCACAGGGATGCCCTGCCACTTGCACCCACCAG
CTCCCTTTTTGGAATGGGCTACACCCAGATTACATAGTGTATCACGAGTTGGTCATGACCACCAAGGAGTATAT
GCAGTGTGTGACCGCTGTGGACGGGGAGTGGCTGGCGGAGCTGGGCCCCATGTTCTATAGCGTGAAACAGGCGGG

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FIGURE 4592B

CAAGTCACGGCAGGAGAACCGTCGTCGGGCCAAAGAGGAAGCCTCTGCCATGGAGGAGGAGATGGCGCTGGCCGA
GGAGCAGCTGCGAGCCCGGCGGCAGGAGCAGGAGAAGCGCAGCCCCCTGGGCAGTGTCTAGGTCTACGAAGATCTA
CACTCCAGGCCGGAAGAGCAAGGGGAGCCCATGACCCCTCGCCGCACGCCAGCCGCTTTGGTCTGTGAGCTGA
GGCTGTCCCCAGAGAGGATGGCAGCAGGTATTGGGTCTCAGCCTTCTGGCGGGAGCCCTGAGGCTGCGGACAAA
GCCCTTTTCATCTGAGGACTTTTCATCTGTGCATATCACGGCCCCCAGGGCAGTTCTGTCTGGACCAGACTCTCTG
GCAGAGGAGGTGGAGTTCTTCCATGCAGGAGCACGGCATGGCGGGAGCGGGGCTGCAGAGTATCCGAGGTGCTGC
CGGGGCAGCGGGAGGTGGCTGGACCCATCGCATCTAAACTGGCCCAGGACACTTGGTGTATGCGTGACTTGGCT
GTGGCTGTCTTTTTTAATCCTTGTGTAAAGCAGCAAAAAAGACCTAAAGGGAATTGTAATTGGTTATAATTGAG
GATTTGGAATAAATTTATTATTTGTAAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4593

MGDTSEDASIHRLGTDLDLCQVGGGLICKSKSAASEQHVFKAPAPRPSLLGLDLLASLKRREREKDDGEDKKKSK
VSSYKDWEESKDDQKDAEEEGGDQAGQNIRKDRHYRSARVETPSHPGGVSEEFWERSRQRERERREHGVYASSKE
EKDWKKEKSRDRDYDRKDRDERDRSRHSSRSERDGGSESSRRNEPESPRHRPKDAATPSRSTWEEEDSGYGSS
RRSQWESPSPTPSYRDSERSHRLSTRDRDRSVRGKYSDDTLPPTPSYKYNEWADDRRLGSTPRLSRGRGRREEG
EEGISFDTEERQQWEDDQRQADRDWYMMDEGYDEFHNPLAYSSEDYVRRREQHLHKQKQKRISAQRRQINEDNE
RWETNRMLTSGVVHRLVDEDEFEEDNAAKVHLMVHNLVPPFLDGRIVFTKQPEPVI PVKDATSDLAI IARKGSQT
VRKHREQKERKKAQHKKHWELAGTKLGDIMGVKKEEEPDKAVTEDGKVDYRTEQKFADHMKRKSEASSEFAKKKSI
LEQRQYLP IFAVQQELLTIIRDNSIVIVGETGSGKTTQLTQYLHEDGYTDYGMIGCTQPRRVAAMSVAKRVSEE
MGGNLGEEVGYAIRFEDCTSENTLIK YMTDGILLRESLREADLDHYSAIIMDEAHERSLNTDVLFGLLREVVAR
SDLKLI VTSATMDAEKFAAFFGNVPIFHIPGRTPFDILFSKTPQEDYVEAAVKQSLQVHLGAPGDILIFMPGQ
EDIEVTS DQIVEHLEEL ENAPALAVLP IYSQLPSDLQAKIFQKAPDGVRKCI VATNIAETSLTVDGIMFVIDSGY
CKLKVFNPRI GMDALQIYPISQANANQRSGRAGRTGPGQCFRLYTQSAYKNELLTTTTP EIQRTNLANVVLLLKS
LGVQDLLQFHFM DPPPEDNMLNSMYQLWILGALDNTGGLTSTGRMLVEFPLDPALSKMLIVSCDMGCSSEILLIV
SMLSVPAIF YRPKGREESDQIREKFVPESDHLTYLNVYLQWKNNYSTIWCNDHF I HAKAMRKVREVRAQLKD
IMVQQRMSL ASCGTDWDIVRK CICAAYFHQA AKLKGIG EYVNIRTGMPCHLHPTSSLFGMGYTPDYIVYHEL VMT
TKEYMQCVTA VDGEWLAELGPMFYSVKQAGKSRQENRRRAKEEASAMEEEMALAEELRARRQE QEKRSPLGSVR
STKIYTPGRKEQGEPMTPRRTPARFGL

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ATTGGGCTGTTGAGCGGGGGCCGACCGACGGCCAGGAGTTTCTTTTCTGCGCTTGTCGCTTTTCTGTTCCGGTTTC
CTTCCCGCTAGCGGGGCCACGAGGGTTGCTAGGCAACAGCCCCTGGGTGACTTGGTCTTAGGGTCTGTCCGGCT
TGGGGCTGATGAAAGGAGCTGTCCGCGCCCGGGCTCTTCCGAGAAGTGGTTGCTGACAGCCACAAAGTGAAAGGG
AGTGAGGCGGCGTGGACGAGTAAGGAGTGACAGTGAGGATTACATTTGGGTTATTTCAGATGAGCTTCCTACT
GCCCAAGCTGACTAGCAAAAAGGAAGTAGACCAGGCGATAAAAAGTACTGCTGAGAAGGTGTTGGTTCTCAGGTT
TGGGAGAGATGAAGATCCTGTCTGTCTGCAGCTAGATGATATTCTTTCTAAGACCTCTTCTGACTTAAGTAAAAA
GGCTGCTATATACCTGGTGGATGTGGACCAAACGTCAGTTTATACACAGTATTTTGACATCAGTTATATATCCATC
TACTGTCTTTTTCTTCAATGGGCAGCATATGAAAGTGGATTATGGATCTCCAGATCACACTAAGTTTGTGGGAAG
CTTCAAAACCAAACAAGACTTCATAGATTTGATTGAAGTAATCTATCGAGGAGCAATGAGGGGGAAGCTTATTGT
CCAAAGTCCTATTGATCCCAAGAATATTCCCAAATATGACCTTCTCTATCAAGACATTAGTACATTAATTGCTG
TCAAAGATGAAGAAGAAGGCACATCTTGACACAGTACCTGAATCCAGCTGTGCTGTGTTTCTGGAGTCCTTTGGA
AACATGTGTCCAGAGGAGAAGAGGTTTGACTTGCCTGTAGAAAACCCGGCCCTGAGGAAAAGACCCCACTGGT
TCTCTGATGACCTGGGATGCCTAACTGTCTACTCCCTGCAAGCCTCAGAGCAGCCAAGTCATTGGTGTTCATTTT
CCCCACAGTGATTTTTGTAACCTCTCTTTCTAATGTTTTTCTTTATCCCTTTAATACAGAACCTCCCAAACATT
GGCTAGTACAACCTTGATTTCAICATGTTCAATTTGATACACAAGTGAACGGAAGTCACTTCCCATAGAAGCAAA
AGTACTTATTTTCTACCCTAGCTGGGTGCATGTGTGTGCACACACACACACACACACACCCCCACACCCCTTTCG
CGGTTCTCTCGACTCATACATCCCTCGTGCTTTCCCATCTCCAGTCTGTATTACTGTAGGTTCTCTTCAAATAATT
AATTGAGCAGACAAGTTTGTTTTATTTTGGAGCCTTTTTGGCTCTGGCTTTTAAACATTGTCTGGTTGGCTCAT
TTAATTTTTTTTTTTTTTTTTTGGAGCCGAGTCACTCTTGTCACCCAGGCTGGAGTGCAGTGGCGCGATCTCGGCTC
ACTGCAAGCTCCACCTCCTGGGTTCAIGCCATTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGACTACAGGCGCCCC
GCCACCATGCCCAGCTAATTTTTTGTATTTTTATAGAGGCGCAGTTTACCCTGTTAGCCAAGATGGTCTCGATC
TCCTGACCTCGTGATCTGCCCTCCTCAGCCTCCCAGGTGCTGGGATTATAGGCGTGAGCCACCGCGCGCACCCCA
TTAATTATTTTTTATGTTATAAAATTTAATATGGAAGTGAGAATTTGAACCTTACCATCCACCACTCTATTC
AGGTAAACAATGAATGAGCCACCTTAGCAGGAGCAGATTTTTCCCAGAAGCTGCTGCCTCTTCTGAGGCAGAA
AATTGGATTACTAAGGCTCAAACTAAAAGAGATGTCAGCATTGTTGGATAGAAATGTCACCTATATGGGATTG
CTGTTTTTAATAACTTTTGTAAGGAATTCTTGCTCTTCTAGGGGTGCCTGGCGCAACCGTGGGCAAGTTACTGCTC
CTCTTTAAACCTCGTGGTGGTTATTGAAACAGATTTATTAGAAGGAGAGGGTAGGTGCAGAGCTGGAGAGCCATG
GGTGAGGCGAGCTTGTGACCTGCCCTAGCAGCCGCTGACCACCTCTCCAACAGAAGCCTAGTCTGTATCCCTGCTGATAAGAGGAGGGA
ACTGTCAGTGCAGAGTCCAGCCCCCTTTGCGAGGGGCTCCATTCCACCTGCTTGTATCCCTGCTGATAAGAGGAGGGA
TCTTGCTTTTTGGCTCATACAGGAGAGAGGGAAGGCTGCCAGCAGCTGCTTCTTCCATCGTACACTTCTCTGCT
CTGGTTAATCATGATGCATGGAGCTACAACAGCCATCTTAGGTCCCCGAGGTGCCAGCATACGTAACAAATC
GATATGCTAAGAAGAACAACAAAAGAGCCCCAATCTCTGATGTTATTGAGCTCCTGCATGAACCTCTGGACCTGCCTGC
CTCAGACTTCTGTGAAAGAATAAAATTTCTTTTTTGCTTAAAAA

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FIGURE 4595

MSFLLPKLTSKKEVDQAIKSTA EKVLVLRFG RDEDPVCLQLDDILSKTSSDLSKMAAIYLV DVDQTAVYTQYFDI
SYIPSTVFFFNGQHMKV DYGSPDHTK FVG SFKTKQDFIDLIEVIYRGAMRGKLIVQSPIDPKNIPKYD LLYQDI

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FIGURE 4596

CTCTTCCAGAGGCAAGACCAACCAAGATGAGTGCCCTGGGAGCTGTCATTGCCCTCCTGCTCTGGGGACAGCTTT
TTGCAGTGGACTCAGGCAATGATGTCACGGATATCGCAGATGACGGCTGCCCGAAGCCCCCGAGATTGCACATG
GCTATGTGGAGCACTCGGTTTCGCTACCACTGTAAGAATACTACTACAACTGCGCACAGAAGGAGATGGAGTATACA
CCTTAAATGATAAGAAGCAGTGGATAAATAAGGCTGTTGGAGATAAACTTCCTGAATGTGAAGCAGATGACGGCT
GCCCGAAGCCCCCGAGATTGCACATGGCTATGTGGAGCACTCGGTTTCGCTACCACTGTAAGAATACTACTACAAAC
TGCGCACAGAAGGAGATGGAGTGACACCTTAAACAATGAGAAGCAGTGGATAAATAAGGCTGTTGGAGATAAAC
TTCCTGAATGTGAAGCAGTATGTGGGAAGCCCAAGAATCCGGCAAACCCAGTGCAGCGGATCCTGGGTGGACACC
TGGATGCCAAAGGCAGCTTTCCCTGGCAGGCTAAGATGGTTTCCCAACATAATCTCACCACAGGTGCCACGCTGA
TCAATGAACAATGGCTGCTGACCACGGCTAAAAATCTCTTCCCTGAACCATTTCAGAAAATGCAACAGCGAAAGACA
TTGCCCCTACTTTAACACTCTATGTGGGGAAAAAGCAGCTTGTAGAGATTGAGAAGGTTGTTCTACACCCTAACT
ACTCCCAGGTAGATATTGGGCTCATCAAACTCAAACAGAAGGTGTCTGTTAATGAGAGAGTGATGCCCATCTGCC
TACCTTCAAAGGATTATGCAGAAGTAGGGCGTGTGGGTTATGTTTCTGGCTGGGGGCGAAATGCCAATTTTAAAT
TTACTGACCATCTGAAGTATGTCATGCTGCCTGTGGCTGACCAAGACCAATGCATAAGGCATTATGAAGGCAGCA
CAGTCCCCGAAAAGAAGACACCGAAGAGCCCTGTAGGGGTGCAGCCCATACTGAATGAACACACCTTCTGTGCTG
GCATGTCTAAGTACCAAGAAGACACCTGCTATGGCGATGCGGGCAGTGCCTTTGCCGTTACGACCTGGAGGAGG
ACACCTGGTATGCGACTGGGATCTTAAGCTTTGATAAGAGCTGTGCTGTGGCTGAGTATGGTGTGTATGTGAAGG
TGACTTCCATCCAGGACTGGGTTCAAGAGCCATAGCTGAGAACTAATGCAAGGCTGGCCGGAAGCCCTTGCTG
AAAGCAAGATTTTCAAGCTGGAAGAGGGCAAAGTGACGGGAGTGGACAGGAGTGGATGCGATAAGATGTGGTTTG
AAGCTGATGGGTGCCAGCCCTGCATTGCTGAGTCAATCAATAAAGAGCTTTCTTTTGACCCA

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FIGURE 4597

ATGCTGTCTGTGTGTGTCTCCGCGGCCGTAGCCCGTGACCTCACTCGTAAGGAAGGAGGTATAGTGAAGAGGACA
GGAACCATTTGTGGACGTTCCAGTCGGTGAGGAGCTGTTGGGTCGTGTAGTTGATGCCCTTGGTAATGCTATTGAT
GGAAAGGGTCCAATGGGTTCGAAGACCCATAAAATCATTCCCTCGAACTTCAGTGTGGGAACCAATGCCGACTGGC
ATTAAGGCTGTGGATAGCTTGGTGCCAATTGGTCTGGTCAGCATGAGCTCATTATTGGTGACCGAAGGACTGGG
AAAACCTCAATTGCTATTGACACAATCATTAAACCAGAAACATTTCAATGATAGATCTGAAGAAAAGAAGAAGCTG
TACTGTATCTATGTTGCTATTGGTTCGAAAGAGATCCACTGTTGCTCAGTTGGTGAAGAGACTTACAGATGCAGAT
GCCGTGAAGTACACCACTGTGGTGTGAGCTATGGCCTCAGATGCTGCCCTACTTCAGTACCTGGCTCCTTACTCT
GACTGTTCCATGGGAGAGTATTTTAGAGACGATGGCAAAATATACTTTGATCATCTATGACGACTTATCCAAACAG
GCTGTGCTTACTGTCAGATGTCTCTGTTGCTCCACCGACCCCCCTGGTCGACTATGAAGCAGGCGGCAGGTACC
ATGAAGCTGGAATTGGCTCAGGATCGTGAGGTTGCTGCTTTTGCCAGTTTGGTTCTGACCTCAATGCTCCCACT
CAACAACATTTGAGTCGCGGTGTGCGTCTAACTGAGTTGCTGAAGCAAGGACAGTATCCTCCCATGGTTACTGAA
CAACAAGTGGCTGTTATCTGTGCGGGTGGAGAGAATATAGAGGACATTCCAAAGGAAGTGCTGACAGACTGCGCC
CACCTTGTGAAGGCCAATAGCACTCAAGGCTGCAAGAACAACGTTAATGTGGTAAATACTCCACGGTCTAACCTG
AAGAAAACAGCTGACGTGGATGTGAGGCAGATAGGCTTTCACAGGCAGAAGGATGTAAAAATTGTGACAATGGAG
AAGAAAAGAGGATTCTAGCTCATATTTGGAACAAGGAAGTTCAAGATCTCATCCGGGACTATCTGGAAGAAGGA
AAGAAGTGGTGGATTGGGCAAAATGTAATGCCATTGAAAAAGCATCAAGACAACAAATACCCAGCAGACGTTGCA
GCCAACGGGCCCCCAAAGCCCCCTCAGCTGCACCTACCTGTCCAGAACTTCATTCCGGATCTCATCCAAAGGGGAC
AAGTGCTTACTGAAATACTATTTCAATTTGCCAGACTGGTGACTTTTGGACGGAGATGCCATTATGAAAGAAAT
GGAAATAATTCCCATTTGTACCAGAGACACAAGAAGACAAAAAGAGGAGTTGCAATAGCAAGAGACAAAATGCC
CCAGACTTTCAGGATCATGTGATTCTTGCCCAAGAAATAAAAGCAAAATCATTTTATTCCCCAGTGGATTCCGAT
GAAACCGGTGATAAAATCAGGTACAACCTCCAAGAGGAGACACTGGAGAACAGGCATGCTGGGTCTGTAA

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FIGURE 4598

MLSVCVSAAVARDLTRKEGGIVKRTGTIVDVPVGEELLGRVVDALGNAIDGKGPMGSKTHKIIPRTSVWEPMP
IKAVDSLVPPIGRGQHELIIGDRRTGKTSIAIDTIINQKHFNRSEEKKLYCIYVAIGRKRSTVAQLVKRLTDAD
AVKYTTVVSAMASDAALLQYLAPYSDCSMGEYFRDDGKYTLIIYDDLKQAVAYCQMSLLLHRPPWSTMKQAAAGT
MKLELAQDREVAFAAQFGSDLNAPTQQLLSRGVRLTELLKQGQYPPMVTEQQVAVICAGGENIEDIPKEVLTDC
HLVKANSTQGCKNNVNVVNTPRS NLKKTADV D VRQIGFHRQKDVKIVTMEKKRGFLAHIWNKEVQDLIRDYLEEG
KKWWIGQNV MPLKKHQDNKYPADVAANGPPKPLSCTYLSRNFIRISSKGDKLLKYFICQTGDFLDGDAHYERN
GNNSHLYQRHKKTKRGVAIARDKMPPDFQDHVIPGQEIKA KSFYSPVDSDETGDKIRYNSKRRHWRTGMLGL

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FIGURE 4599

CTGTGGCTGGCCTCCCCGCGCCAGAGCGAAATTAAGGGCATGCCCCAGCAGCTGACTCAGTCGGCGTGGCGCT
TCCCCCAACGTCTGCCGTGCCCCGCGCGGGAAGTAGTCCCCGGCCGCGCCGACTCCAAAGGAAACCGAGGGAG
GGTGCCCCGAGTCAGCGCGTGGGTCCCGGCAGCGGCGATCGCGCAGCCAATCCCTGGAAAGGAGGGCGTGGCTAT
ATCGGCCCCGTGGATCCCTCCGCCCCGCGCTTGTTGIGCTGAGGCCGAGGGAGTCGCCATTTTGGATGGTGAACCC
TGAAGTCGGTGTCTGCTGCGTTACGGCAGGATTTCGGTTAGGAGGAACAGCACAGCATGCTGGGCTCTGGATTTA
AAGCTGAGCGCTTAAGAGTGAATTTGAGATTAGTCATAAATCGCCTTAAACTATTGGAGAAAAAGAAAACGGAAC
TGGCCAGAAAGCAAGGAAGGAGATTGCTGACTATCTGGCTGCTGGGAAAGATGAACGAGCTCGGATCCGTGTGG
AGCACATTATCCGGGAAGACTACCTCGTGGAGGCCATGGAGATCCTGGAGCTGTACTGTGACCTGCTGCTGGCTC
GGTTTGGCCTTATCCAGTCTATGAAGGAAGTAGATTCTGGTCTGGCTGAATCTGTGTCTACATTGATCTGGGCTG
CTCCTCGACTCCAGTCAGAAGTGGCTGAGTTGAAAATAGTTGCTGATCAGCTCTGTGCCAAGTATAGCAAGGAAT
ATGGCAAGCTATGTAGGACCAACCAGATTGGAAGTGTGAATGACAGGCTAATGCACAAGCTGAGTGTGGAAGCCC
CACCCAAAATCCTGGTGGAGAGATACCTGATTGAAATTGCAAAGAATTACAACGTACCCTATGAACCTGACTCTG
TGGTCATGGCAGAAGCTCCTCCTGGGGTAGAGACAGATCTTATTGATGTTGGATTACAGATGATGTGAAGAAAG
GAGGCCCTGGAAGAGGAGGGAGTGGTGGCTTCACAGCACCAGTTGGTGGACCTGATGGAACGGTGCCAATGCCCCA
TGCCCATGCCCCATGCCTATGCCATCTGCAAATACGCCTTTCTCATATCCACTGCCAAAGGGACCAGTAGATGACA
TTAATGCTGATAAGAATATCTCTTCTGCACAGATTGTTGGTCTCGGACCCAAGCCAGAAGCCTCTGCAAAGCTTC
CTTCCAGACCTGCAGATAACTATGACAACTTTGTCTTACCAGAGTTGCCATCTGTGCCAGACACACTACCAACTG
CATCTGCTGGTGCCAGCACCTCAGCATCTGAAGACATTGACTTTGATGATCTTTCCCGGAGGTTTGAAGAGCTGA
AAAAGAAAACATAGGTCTCTTAAACCAGGCAACTTTACGTTTTGGGAGTTGAGACTGAGCAATTTCTCCTTGTA
ACAAAGAATCTCCATGAAATTCTGTTTCATCTGTTAACCGTCACTCAGCACAACTCCCTCTGGGCTCTCTTCC
TGCTCCTCCAGATTCTGCTGCTTTCCAGTTCTCTGTTGATCCTGAGACTAACAATTGGAGACTGAGGCCAGAGCA
ACTGGCTCCTGGCAGCTGTGCTTGTCCGTTTCTGTGTCAGAGTGATCCAGGTTTCTCCTGGCCCCGTCCCATGGT
CCCTCCACAGGAGTGTGAGAGGATGGGGGAAGCACTGTGGGAAGACCACCAAAGATGGCTGGACAGTGGGAGAGA
GCACGTTGTGAAGCATCCAGCCTCGTGTGAGGTTCCAGACTTAGAAACAGACCCCTCTGTACAGGGGGATTGT
GGTGAGTGAGAATCAAGGCCACCTTGTGTGTTTTCTCACTCTCGAATGCAAGTGGGAGAGGGAAAATGACTCGGG
ACGCCATTGTAACGGTTCTGGAAGCTGGGCCCTCTCATTGGCATATACAGTACTCCTCGCTGCAGGGCACTGTC
CCACCGGGATCCAGTTGCAAAGTTTGTCTTGACAGTTGAAGGCTCGCTTAGTTGTACTGGATTCTCAGGGAGCC
CTCTGTGGCCTTTTGTCTTGTGCTGCTTTCCCTTGTACCAGAGGGCGGCACCGTGGAATTTCTGTTTTCCCTGT
AGCATATTGTGTTGGATTGCATTACTGGCAGAGAAAGGACAAGGTGCCATTCAAGTCCTAGGGTGGGCTTCCAGC
TGCCTTAATAGAAGTACTCAAGTCTTTTGGGTAGTGAGCTGGAAGCCTACAGGAAAAGAGGGGTACCTGTTTTT
ATTTGAAAACTTTGATTGATGGAACCTTTAAACTAATCTCAGAAAAATTTTTGGTGCCCATGCAGCTGTAGTTG
TTCACTGCTTTCTGGATGGATGGGACTCTTATGTCATAACTTCTGTTACTCCTTTGGCCCATAGCTAAGGTCAT
CCTTCCCCACAGGGGTGGCTTTGGGATTGGATGATACAGCTTTTGTCTGTGTAGTATACCTGTACATACTTGT
TTCAGGCAGCCTTTCTTTAATGTTTTAGTTGGTTTGTATTCTGTAGCTCAGTAGCTGCTAATAAAGTTAAAGAT
CCTGTG

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FIGURE 4600A

CGGCGCTGAGTGACCCGAGTCGGGACGCGGGCTGCGCGCGCGGGACCCCGGAGCCCAAACCCGGGGCAGGCGGGC
AGCTGTGCCCCGGGCGGCACGGCCAGCTTCTCTGATTCTCCCGATTCTTCTCTCTCCCTGGAGCGGGCCGACAATG

TCCACCACGGTCAATGTAGATTCCCTTGCGGAATATGAGAAAGAGCCAGATCAAGAGAGCCCTGGAGCTGGGGACG
GTGATGACTGTGTTTACGCTTCCGCAAGTCCACCCCCGAGCGGAGAACCGTCCAGGTGATCATGGAGACGCGGCAG
GTGGCCTGGAGCAAGACCGCTGACAAGATCGAGGGCTTCTTGGATATCATGGAAATAAAAGAAATCCGCCCAGGG
AAGAACTCCAAAGATTTCGAGCGAGCAAAAGCAGTTCGCCAGAAAGAAAGACTGCTGCTTACCATCCTATATGGC
ACTCAGTTCTCTCAGCACGCTCAGCTTGGCAGCTGACTCTAAAGAGGATGCAGTTAACTGGCTCTCTGGCTTG
AAAATCTTACACCAGGAAGCGATGAATGCGTCCACGCCCCACCATTCGAGAGTTGGCTGAGAAAGCAGATATAT
TCTGTGGATCAAACCAGAAAGAACAGCATCAGTCTCCGAGAGTTGAAGACCATCTTGCCCCCTGATCAACTTTAA
GTGAGCAGTGCCAAGTTCTTAAAGATAAGTTTGTGGAATAGGAGCACACAAAGATGAGCTCAGCTTTGAACAG
TTCCATCTCTTCTATAAAAACTTATGTTTGAACAGCAAAAATCGATTCTCGATGAATTCAAAAAGGATTCTGTC
GTGTTTATCTTGGGAACACTGACAGGCCGGATGCCCTGCTGTTTACCTGCATGACTTCCAGAGGTTTCTCATA
CATGAACAGCAGGAGCATTTGGGCTCAGGATCTGAACAAAGTCCGTGAGCGGATGACAAAGTTTATTGATGACACC
ATGCGTGAAACTGCTGAGCCTTCTTGTGTTTGTGGATGAGTTCTTACGTACCTGTTTTCACGAGAAAACAGCATC
TGGGATGAGAAGTATGACGCGGTGGACATGCAGGACATGAACAACCCCCCTGTCTCATTACTGGATCTCCTCGTCA
CATAACACGTACCTTACAGGTGACCAGCTGCGGAGCGAGTCTGTCGCCAGAGCTTACATCCGCTGCCTGCGCATG
GGCTGTGCTGCATTGAAGTGGACTGCTGGGACGGGCCGATGGGAAGCCGGTCACTACCATGGCTGGACGCGG
ACTACCAAGATCAAGTTTGACGACGTCGTGCAGGCCATCAAAGACCACGCCTTGTGTACCTCGAGCTTCCAGTG
ATCCTGTCCATCGAGGAGCACTGCAGCGTGGAGCAACAGCGTCAATGGCCAAGGCCTTCAAGGAAGTATTTGGC
GACCTGCTGTTGACGAAGCCACGGAGGCCAGTGTGACCAGCTGCCCTCGCCAGCCAGCTGCGGGGAGAAGATC
ATCATAGTCATAAGAAGCTGGGCCCCCGAGGCGATGTGGATGTCAACATGGAGGACAAGAAGGACGACACAAAG
CAACAGGGGGAGCTGTACATGTGGGATTCCATTGACCAGAAATGGACTCGGCACTACTGCGCCATTGCCGATGCC
AAGCTGTCTTTCAGTGTGACATTGAACAGCATATGGAGGAGGAAGTGCCCCAGGATATACCCCCCTACAGAACTA
CATTTTGGGGAGAAATGGTTCCACAAGAAGGTGGAGAAGGAGGACGAGTGCCGAGAAGTTGCTGCAGGAATACTGC
ATGGAGACGGGGGGCAAGGATGGCACCTTCTGTTTGGGAGAGCGAGACCTTCCCCAATGACTACACCCTGTCC
TTCTGGCGGTGAGGCCGGGTCCAGCACTGCCGGATCCGCTCCACCATGGAGGGCGGGACCCTGAAATACTACTTG
ACTGACAACCTCACCTTCAGCAGCATCTATGCCCTCATCCAGCACTACCGCGAGACGCACCTGCGCTGCGCCGAG
TTCGAGCTGCGGCTCACGGACCCTGTGCCCAACCCCAACCCCAACGAGTCCAAGCCGTGGTACTATGACAGCCTG
AGCCGCGGAGAGGCAGAGGACATGCTGATGAGGATTCCCCGGGACGGGGCCTTCTGATCCGGAAGCGAGAGGGG
AGCGACTCCTATGCCATCACCTTCAGGGCTAGGGGCAAGGTAAAGCATTGTGCGCATCAACCGGGACGGCCGGCAC
TTTGTGCTGGGGACCTCCGCTATTTTGAGAGTCTGGTGGAGCTCGTCAGTTACTACGAGAAGCATTCACTCTAC
CGAAAGATGAGACTGCGCTACCCCGTGACCCCGAGCTCCTGGAGCGCTACAATATGGAAAGAGATATAAACTCC
CTCTACGACGTCAGCAGAATGTATGTGGATCCAGTGAAATCAATCCGTCCATGCCTCAGAGAACCCTGAAAGCT
CTGTATGACTACAAAGCCAAGCGAAGCGATGAGCTGAGCTTCTGCCGTGGTGCCCTCATCCACAATGTCTCCAAG
GAGCCCGGGGGCTGGTGGAAAGGAGACTATGGAACCAGGATCCAGCAGTACTTCCCATCCAACCTACGTCGAGGAC
ATCTCAACTGCAGACTTCGAGGAGCTAGAAAAGCAGATTATTGAAGACAATCCCTTAGGGTCTCTTTGCAGAGGA
ATATTGGACCTCAATACCTATAACGTCGTGAAAGCCCCCTCAGGGAAAAAACAGAGTCCCTTGTCTTCATCCTG
GAGCCCAAGCAGCAGGGCGATCCTCCGGTGGAGTTTGCACAGACAGGGTGGAGGAGCTCTTTGAGTGGTTTCAG
AGCATCCGAGAGATCACCTGGAAGATTGACACCAAGGAGAACACATGAAGTACTGGGAGAAGAACCAGTCCATC
GCCATCGAGCTCTCTGACCTGGTTGTCTACTGCAAACCAACCAGCAAAACCAAGGACAACCTAGAAAATCCTGAC
TTCCGAGAAATCCGCTCCTTTGTGGAGACGAAGGCTGACAGCATCATCAGACAGAAGCCCGTCGACCTCCTGAAG
TACAATCAAAGGGCCTGACCCGCGTCTACCCAAAGGGACAAAGAGTTGACTCTCAAACCTACGACCCCTTCCGC
CTCTGGCTGTGCGTTCTCAGATGGTGGCACTCAATTTCCAGACGGCAGATAAGTACATGCAGATGAATCACGCA
TTGTTTTCTCTCAATGGGCGCACGGGCTACGTTCTGCAGCTGAGAGCATGAGGACAGAGAAATATGACCCGATG
CCACCCGAGTCCCAGAGGAAGATCCTGATGACGCTGACAGTCAAGGTTCTCGGTGCTGCCATCTCCCCAACTT
GGACGAAGTATTGCCGTGTCCTTTGTAGAAGTGGAGATCTGTGGAGCCGAGTATGACAACAACAAGTTCAAGACG
ACGGTTGTGAATGATAATGGCCTCAGCCCTATCTGGGCTCCAACACAGGAGAAGGTGACATTTGAAATTTATGAC
CCAACCTGGCATTCTGCGCTTTGTGGTTTATGAAGAAGATATGTTTACGCGATCCCAACTTTCTTGCTCATGCC

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FIGURE 4600B

ACTTACCCCATTTAAAGCAGTCAAATCAGGATTCAGGTCCGTTCCCTCTGAAGAATGGGTACAGCGAGGACATAGAG
CTGGCTTCCCTCCTGGTTTTCTGTGAGATGCGGCCAGTCCGGAGAGCGAAGAGGAACTTTACTCCTCCTGTGCGC
CAGCTGAGGAGGCGGCAAGAAGAACTGAACAACCAGCTCTTTCTGTATGACACACACCAGAACTTGCGCAATGCC
AACCGGGATGCCCTGGTTAAAGAGTTCAGTGTTAATGAGAACCAGCTCCAGCTGTACCAGGAGAAATGCAACAAG
AGGTTAAGAGAGAAGAGAGTCAGCAACAGCAAGTTTTACTCATAAGCTGGGGTATGTGTGTAAGGGTATTGTG
TGTGTGCGCATGTGTGTTTGCATGTAGGAGAACGTGCCCTATTCACACTCTGGGAAGACGCTAATCTGTGACATC
TTTTCTTCAAGCCTGCCATCAAGGACATTTCTTAAGACCCAAC TGGCATGAGTTGGGGTAATTTCTTATTATTTT
CATCTTGGACAACTTTCTTAACTTATATTCTTTATAGAGGATCCCCAAAATGTGCTCCTCATTTTTGGCCTCTC
ATGTTCCAAACCTCATTGAATAAAAGCAATGAAAACCTTG

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FIGURE 4601

MSTTVNVDSLAEYEKSQIKRALELGTVMTVFSFRKSTPERRTVQVIMETRQVAWSKTADKIEGF LDIMEIKEIRP
GKNSKDFERAKAVRQKEDCCFTILYGTQFVLSTLSLAADSKEDAVNWLSGLKILHQEAMNASTPTIIESWL RKQI
YSVDQTRRNSISLRELKTILPLINFKVSSAKFLKDKFVEIGA HKDELSFEQFHLFYKKLMFEQQKSILDEFKKDS
SVFILGNTDRPDASAVYLHDFQRFLIHEQQEHWAQDLNKVRERM TKFIDDTMRETAEPFLFVDEFLT YLFSRENS
IWDEKYDAVDMQDMNPNLSHYWISSSHNTYLTGDLRSESSPEAYIRCLRMGCRCIELDCWDGPDGKPV IYHGWT
RTTKIKFDDVVQAIKDHAFVTSSFPVILSIEEHCSVEQQRHMAKAFKEVFGDLLLT KPTEASADQLPSPS QLREK
IIIKHKKLGPRGDVDVNMEDKKDEHKQQGELYMWDSIDQKWTRHYCAIADAKLSFSDDIEQTMEE EVPDIPPE
LHFGEKWFHKKVEKR TSAEKL LQEYCMETGGKDGTF LVRESETFPNDYTL SFWRSGRVQHCRIRSTMEGGTLKYY
LTDNLTFSSIIYALIQHYRETHLRCAEFELRLTDPVPNPNPHESKPWYYDSL SRGEAEDMLMRIPRDGAFLIRKRE
GSDSYAITFRARGKVKHCRINRDGRHFVLGTSAYFESLVELVSYYEKHSLYRKMRLRYPVTP ELLERYNMERDIN
SLYDVSRMYVDPSEINP SMPQRTVKALYDYKAKRSDELSFCRGALIHNVSKEPGGWWKGDYGTRIQQYFPSNYVE
DISTADFE ELEKQIIEDNPLGSLCRGILD LNTYNVVKAPQGKNQKS FVF ILEPKQQGDPPVEFATDRVEELFEWF
QSIREITWKIDTKENNMKYWEKNQSI AIELSDLVYCKPTSKTKDNLENPDFREIRSFVETKADSIIRQK PVDLL
KYNQKGLTRVYPKGQRVDSSNYDPFRLWL CGSQMVALNFQTADKYMQMNHALFSLNGRTGYVLQPE SMRTEKYDP
MPPESQRKILMTLTVKVLGARHLPKLGRS IACPFVEVEICGAEYDNNKF KTTVVNDNGLSPIWAPTQEKVTFE IY
DPNLAF LRFVVEEDMFSDPNFLAHATYPIKAVKSGFRSVPLKNGYSEDI ELASLLVFCEMRPVLESEEEEL YSSC
RQLRRRQEELNNQLFLYDTHQNLRNANRDALVKEFSV NENQLQLYQEKCNKRLREKRVSNSKFYS

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FIGURE 4602

GGGCGGGCCCGCACCCCTGCGAACATGGCGCTGCGAGTGGTGCGGAGCGTGCGGGCCCTGCTCTGCACCCTGCGC
GCGGTCCCGTTACCCGCCGCGCCCTGCCCGCCGAGGCCCTGGCAGCTGGGGGTGGGCGCCGTCCGTACGCTGCGC
ACTGGACCCGCTCTGCTCTCGGTGCGTAAATTCACAGAGAAACACGAATGGGTAAACAACAGAAAATGGCATTGGA
ACAGTGGGAATCAGCAATTTTGCACAGGAAGCGTTGGGAGATGTTGTTTATTGTAGTCTCCCTGAAGTTGGGACA
AAATTGAACAAACAAGATGAGTTTGGTGCTTTGGAAAGTGTGAAAGCTGCTAGTGAACCTATTCTCCTTTATCA
GGAGAAGTAACTGAAATTAATGAAGCTCTTGCAAGAAATCCAGGACTTGTAACAAATCTTGTTATGAAGATGGT
TGGCTGATCAAGATGACACTGAGTAACCCCTTCAGAACTAGATGAACCTATGAGTGAAGAAGCATATGAGAAATAC
ATAAAATCTATTGAGGAGTGAATGGAACCTCTAAATAAACTAGTATGAAATAACGCAAGCCAGCAGAGTTGTC
TTAAATTAGTGGTGGATAGAAGACTTAGAATAGAACTTTTAGTATTACCGATGGGGAAAAAAAACACTACTGTTA
ACACTGCTAATGAAAGAAAATGCCCTTTAACTTTCTAATGATTATAGATAAATAAATATGCGTCTTTTTTCACAA
TATCCTATGATTTTGTAGACTAGGCTCTAGTGTTTCAAGATTATGAAATTATCCATGGTAAAACTAGTTATAAAA
ATTACATAATTCAAAGATAACATTGTTATTCTTAAGCCTTATATAATATTGTAACCTGTCATGTATCCATACCTGG
ATTTGGGATGAAATACTTAATGATCTTTCCATTGGAAATAACTGGAAGTGAAGAGGTTTTGTTGCTTGTACAGTG
TCAGATGAGGAACACCACTATCTTAATTTTGCATACACTGCATTTGCTGGTGCTATTTTTATACAGTGAAGCAA
CAGCTTTGCAGCAAAATAATAAAATACTTCTTCGTT

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FIGURE 4603

MALRVVRSVRALLCTLRVPLPAAPCPPRPWQLGVGAVRTLRTGPALLSVRKFTKHEWVTENGIGTVGISNFA
QEALGDVVYCSLPEVGTKLNKQDEFGALESVKAASELYSPLSGEVTEINEALAENPGLV NKSCYEDGWLIKMTLS
NPSELDELMSEEAYEKYIKSIEE

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FIGURE 4604

ACGGTGGAGCGGTGGAGGGCGTCACTGGGTTTCGGCGTCTGGCAAGCGGTTTCAGCTGTCTGCTCCCTAGCAGCCG
GCCTTCGGGTCGGGCGTCTCCGCGGCTACTGCCGCTTCAGTTCTCCCGGTGTGGCCACGAGTCGGGTTGCACTGC
TGTGATCCATCCTCATCTCCTAAAGATGCATCCTGACTTATCTCCACACTTGCACACTGAAGAATGCAACGTCTT
GATTAACCTTGCTTAAGGAATGTCACAAAAATCACAACATTCTGAAATTTTTTGGTTATTGTAATGATGTTGATCG
GGAGTTGAGAAAATGCCTGAAGAATGAGTACGTAGAAAACAGGACCAAGAGCAGGGAGCATGGCATTGCAATGCG
AAAGAACTTTTTAATCCTCCAGAGGAATCCGAAAAATAAATTGTATTTTCACTCGATGCCTTGGCTGAGAGAAG
ACCTAAAGACTCTGGGTTGATACCTGAAAGAATCCTGTCTTATTTGGTCTCCATAATCCTTTGAATGGAAAGTGA
CCTGTGAGAGATTGAACCATGGAGAAATATGAAAACCCTGGATTCTGAGTATTTGTTGGGCAGGGCGTTTAGTAC
TGTCTCCCTTTACCAGCAAACCTGACTTCACCATGTTTATTCCTTTGCCTACAACCAGTTAATATCTGAGTAA
CTTATCTCCTTCAATAAAATAATTTAAATAAAAAAAAAAAAA

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FIGURE 4605

MHPDLSPHLHTEECNVLINLLKECHKNHNILKFFGYCNDVDRELKCLKNEYVENRTKSREHGIAMRKKLFNPPE
ESEK

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FIGURE 4606

GCGCAGGCGCGGCGGCCGATGCGAGTGTGTATGTGCGGGCGAGAAGATGGCGGCGGCGGGGGAAGCAGCGTGAGC
AGCCGGAGGATCGCGGAGTCCCAATGAAACGGGCAGCCATGGCCCTCCACAGCCCGCAGTATATTTTTGGAGATT
TTAGCCCTGATGAATTCAATCAATTCTTTGTGACTCCTCGATCTTCAGTTGAGCTTCTCCATACAGTGGAACAG
TTCTGTGTGGCACACAGGCTGTGGATAAACTACCTGATGGACAAGAATATCAGAGAATTGAGTTTGGTGTCTGATG
AAGTCATTGAACCCAGTGACACTTTGCCGAGAACCCCGAGCTACAGTATTTCAAGCACACTGAACCCCTCAGGCCC
CTGAATTTATTTCTCGGTTGTACAGCTTCCAAAATAACCCCTGATGGTATCACTAAAGAAGCAAGCTATGGCTCCA
TCGACTGCCAGTACCCAGGCTCTGCCCTCGCTTTGGATGGAAGTTCTAATGTGGAGGCGGAAGTTTGGAAAAATG
ATGGTGTCTCAGGTGGTCTTGGACAAAGGGAGCGTAAAAAGAAGAAAAAGCGGCCACCTGGATATTACAGCTATT
TGAAAGATGGTGGCGATGATAGTATCTCCACAGAAGCCCTGGTCAATGGCCATGCCAATTCAGCAGTCCCGAACA
GTGTCAGTGCAGAGGATGCAGAATTTATGGGTGACATGCCCCCGTCAGTTACGCCCAGGACTTGTAAACAGCCCCC
AGAACTCCACAGACTCTGTCAGTGACATTGTGCTGACAGTCCCTTTCCCGGAGCACTCGGCAGTGACACCAGGA
CTGCAGGGCAGCCAGAGGGGGGCCCCGGGGCTGATTTTGGTCAGTCCCTGCTTCCCTGCAGAGGCTGGCAGAGACA
CCCTGTCAAGGACAGCTGGGGCTCAGCCCTGCGTTGGTACCGATACTACTGAAAACCTTGGAGTTGCTAATGGAC
AAATACTTGAATCCTCGGGTGAGGGCACAGCTACCAACGGGGTGGAGTTGCACACCACGGAAAGCATAGACTTGG
ACCCAACCAAACCCGAGAGTGCATCACCTCCTGCTGACGGCACGGGCTCTGCATCAGGCACCCCTTCTGTCTAGCC
AGCCCAAGTCTTGGGCCAGCCTCTTTTCATGATTCTAAGCCCTCTTCTCTCGCCGGTGGCTATGTGGAAACTA
AGTATTTCCCTTCCCGCCATATCTCCCTGGTTTCTGAAAAGCAGGTTGAAGTCAAAGAAGGGCTTGTTCGGGTTT
CAGAGGATCCTGTAGCCATAAAGATTGCAGAGTTGCTGGAGAATGTAACCCTAATCCATAAACCAGTGTGCTTGC
AACCCCGTGGGCTGATCAATAAAGGGAAGTGGTGCTACATTAATGCTACACTGCAGGCATTGGTTGCTTGCCCGC
CGATGTACCACCTGATGAAGTTTCAATCTCTGTATTCCAAAGTGCAAAGGCCTTGACGTCAACACCCATGATAG
ACAGCTTTGTTTCGGCTAATGAATGAGTTCACTAATATGCCAGTACCTCCAAAACCCCGACAAGCTCTTGGAGATA
AAATCGTGAGGGATATTCGCCCTGGAGCTGCCTTTGAGCCACATATATTTACAGACTCCTGACAGTTAACAAGT
CAAGCCTGTCTGAAAAGGGTCGACAAGAAGATGCTGAGGAATACTTAGGCTTCATTCTAAATGGACTTCATGAGG
AAATGTTGAACCTAAAGAAGCTTCTCTCACCAAGTAATGAAAACTTACGATTTCCAACGGCCCCAAAAACCACT
CGGTCAATGAAGAAGAGCAGGAAGAACAAGGTGAAGGAAGCGAGGATGAATGGGAACAAGTGGGCCCCCGGAACA
AGACTTCCGTACCCGCCAGGCGGATTTTGTTCAGACTCCAATCACCGGCATTTTGGTGGACACATCAGGTCTG
TGGTTTACCAGCAGAGTTCAAAGAATCTGCCACTTTGCAGCCATTTTTCAGTTGCAGTTGGATATCCAGTCAG
ACAAGATACGCACAGTCCAGGATGCACTGGAGAGCTTGGTGGCAAGAGAATCTGTCCAAGGTTATACCACAAAAA
CCAAACAAGAGGTTGAGATAAGTCAAGAGTGACTCTGGAAAACTCCCTCCTGTCTCTGCTGCACCTGAAAC
GATTGTTTTATGAGAAGACTGGTGGGTGCCAGAAGCTTATCAAAAATATTGAATATCCTGTGGACTTGGAAATTA
GTAAAGAAGTCTTTCTCCAGGGGTTAAAAATAAGAATTTTAAATGCCACCGAACCTATCGGCTGTTTGCAGTGG
TCTACCATCACGGCAACAGTGCAGCGGGCGGCCATTACACTACAGACGTCTTCCAGATCGGTCTGAATGGCTGGC
TGCGCATCGATGACCAGACAGTCAAGGTGATCAACCAGTACCAGGTGGTGAACCAACTGCTGAACGCACAGCCT
ACCTCCTGTATTACCGCCGAGTGGACCTGCTGTAAACCCCTGTGTGCGCTGTGTGTGCGCCAGTGCCCGCTTCTGT
AGGACACCACCTCACACTCACTTCCCGCCTCTCTTTAGTGGCTCTTTAGAGAGAACTCTTTCTCCCTTTGCAAA
AATGGGCTAGAATGAAAAGGAGATGCCTTGGGGTTCGTGCACAACACAGCTTCTGTTGACTCTAACTTCCAAATC
AAAAATCATTGTTGTTGAAACAGACTGTTGCTTGATTTTAGAAAATACACAAAAACCCATATTTCTGAAATAATGCT
GATTCTTGAGATAAGAAAGTGGATTTGATCCCCAGTCTCATTGCTTAGTAGAATAAATCCTGCACCAGCAACAAC
ACTTGTAATTTGTGAAAATGAATTTTATCTTCCTTAAAAAAGAAATTTTTTAATCCATCACACTTTTCTTCCC
TACCCTTTAGTTTTTGTATAAATGATAAAATGAGCCAGTTATCAAAGAAGAACTAGTTCTTACTTCAAAGAAAA
ATAAACATAAAAAATAAGTTGCTGGTTCCTAACAGGAAAAATTTTAATAATTGTACTGAGAGAACTGCTTACGT
ACACATTGCAGATCAAATATTTGGAGTTAAAATGTTAGTCTACATAGATGGGTGATTGTAACCTTATTGCCATTA
AAAGATTTCAAATTGCATTCTGCTTCTGTGTACACATAATGAAAAATGGGCAATAATGAAGATCTCTCCTTCA
GTCTGCTCTGTTAATTCTGCTGTCTGCTCTTCTCTAATGCTGCGTCCCTAATTGTACACAGTTTAGTGATATCT
AGGAGTATAAAGTTGTGCGCCATCAATAAAAATCACAAAGTTGGTTT

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FIGURE 4607

MALHSPQYIFGDFSPDEFNQFFVTPRSSVELPPYSGTVLCGTQAVDKLPDGGQEYQRIEFGVDEVIEPSDTLPRTP
SYSISSTLNPQAEFILGCTASKITPDGITKEASYGSIDCQYPGSALALDGSSNVEAEVLENDGVSGGLGQREK
KKKKRPPGYYSYKDGDDDSISTEALVNGHANSAPNSVSAEDAEFMGDMPPSVTPRTCNSPQNSTDSVSDIVPD
SPFPGALGSDTRTAGQPEGPGADFGQSCFPAEAGRDTLSRTAGAQPCVGTDTTENLGVANGQILESSGEGTATN
GVELHTTESIDLDPKPEASPPADGTGSASGTLPVSQPKSWASLFHDSKPSSSSPVAYVETKYSPPAISPLVSE
KQVEVKEGLVPVSEDPVAIKIAELLENTLIHKPVSLQPRGLINKGNWCYINATLQALVACPPMYHLMKFIPLYS
KVQRPCTSTPMIDSFVRLMNEFTNMPVPPKPRQALGDKIVRDIRPGAFFEPTYIYRLLTVNKSSLSEKGRQEDAE
EYLGFI LNGLHEEMLNLKKLLSPSNEKLTISNGPKNHSVNEEEQEEQEGSEDEWEQVGPRNKTSVTRQADFVQT
PITGIFGGHIRSVVYQQSSKESATLQPFFTLQLDIQSDKIRTVQDAESLVARESVQGYTTTKQEVEISRRVTL
EKLPPVLVLHLKRFVYEKTGGCQKLIKNI EYPVDLEISKELLSPGVKNKNFKCHRTYRLFAVVYHHGNSATGGHY
TTDVFQIGLNGWLRIDDQTVKVINQYQVVKPTAERTAYLLYYRRVDLL

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FIGURE 4608

GGAAGCCGACGCCGCGCTCGCATGCTCGCAGGCGCCGCGTAGCCGTCGCCACCGCCGCCAGCCCGTGCGCCCTCG
GCGCGTACCCGCCGCGCTCCCATCCCCGCCGCCGGCCAGGGGCGCGCTCGGCCGCCCGGACAGTGTCCCGCTGC
GGCTCCGCGCGCATGGCCACCAAGATCGACAAAGAGGCTTGCCGGGCGGCGTACAACCTGGTGCGCGACGACGGC
TCGGCCGTCATCTGGGTGACTTTTAAATATGACGGCTCCACCATCGTCCCCGGCGAGCAGGGAGCGGAGTACCAG
CACTTCATCCAGCAGTGACAGATGACGTCCGGTTGTTTGCTTCGTGCGCTTCACCACCGGGGATGCCATGAGC
AAGAGGTCCAAGTTTGCCCTCATCACGTGGATCGGTGAGAACGTCAGCGGGCTGCAGCGCGCCAAAACCGGGACG
GACAAGACCCTGGTGAAGGAGGTCGTACAGAATTCGCTAAGGAGTTTGTGATCAGTGATCGGAAGGAGCTGGAG
GAAGATTTTCATCAAGAGCGAGCTGAAGAAGGCGGGGGAGCCAATTACGACGCCAGACGGAGTAACCCAGCCC
CCGCCACACCACCCCTTGCCAAAGTCATCTGCCTGCTCCCCGGGGGAGAGGACCGCCGGCCTCAGCTACTAGCCC
ACCAGCCCACCAGGGAGAAAAGAAGCCATGAGAGGCAGCGCCCGCCACCCGTGTGCCACAGCCCCACCTTCCCG
CTTCCCTTAGAACCCCTGCCGTGTCTATCTCATGACGCTCATGGAACCTCTTCTTTGATCTTCTTTTCTTTTC
TCCCCCTCTTTTTTGTCTAAAGAAAAGTCATTTTGATGCAAGGTCTGCTGCCATCAGATCCGAGGTGCCTCC
TGCACTGACCCCTTTTCTGGCATTTCTCTTCCACGCGACGAGGTCTGCCTAGTGAGATCTGCATGACCTCACGT
TGCTTTCCAGAGCCCCGGGCTATTTTGCCATCTCAGTTTTCTGGACCCCTGCTTCCTGTGTACCACTGAGGGGCA
GCTGGGCCAGGAGCTGTGCCCGGTGCCTGCAGCCTTCATAAGCACACACGTCCATTCCCTACTAAGGCCAGACC
TCCTGGTATCTGCCCCGGGCTCCCTCATCCCACCTCCATCCGGAGTTGCCAAGATGCATGTCCAGCATAGGCAG
GATTGCTCGGTGGTGAGAAGGTTAGGTCCGGCTCAGACTGAATAAGAAGAGATAAAATTTGCCTTAAACTTACC
TGGCAGTGGCTTTGCTGCACGGTCTGAAACCACCTGTTCCCACCCCTCTTGACCGAAATTTCTTGTGACACAGAG
AAGGGCAAAGGTCTGAGCCCAGAGTTGACGGAGGGAGTATTTAGGGTTCACCTCAGGGGCTCCCAAAGCGACAA
GATCGTTAGGGAGAGAGGCCAGGGTGGGGACTGGGAATTTAAGGAGAGCTGGGAACGGATCCCTTAGGTTACAGG
AAGCTTCTGTGTAAGCTGCGAGGATGGCTTGGGCCGAAGGGTTGCTCTGCCCGCCGCGCTAGCTGTGAGCTGAGC
AAAGCCCTGGGCTCACAGCACCCCAAAGCCTGTGGCTTCAGTCTGCGTCTGCACCACACATTCAAAGGATCG
TTTTGTTTTGTTTTTAAAGAAAGGTGAGATTGGCTTGGTTCTTCATGAGCACATTTGATATAGCTCTTTTCTGT
TTTTCCTTGCTCATTTTCGTTTTGGGGAAGAAATCTGTACTGTATTGGGATTGTAAAGAACATCTCTGCACTCAGA
CAGTTTACAGAAATAAATGTTTTTTTTGTTTTTCAG

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FIGURE 4609

MATKIDKEACRAAYNLVRDDGSAVIWVTFKYDGSTIVPGEQGAEYQHFIQQCTDDVRLFAFVRFTTG DAMSKRSK
FALITWIGENVSGLQRAKTGTDKTLVKEVVQNFAKEFVISDRKELEEDFIKSELKKAGGANYDAQTE

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FIGURE 4610

GCGGCCGGCGGCGTCTCCTCCCGGGACGCTGAGGGGCCCGAGGAGACCGTGAGGCTCTGGCCTGCAGCTCGCGCC
GCCATGGACGCTGCCGAGGTCGAATTCCTCGCCGAGAAGGAGCTGGTTACCATTATCCCCAACTTCAGTCTGGAC
AAGATCTACCTCATCGGGGGGACCTGGGGCCTTTTAACCCTGGTTTACCCGTGGAAGTGCCCTGTGGCTGGCG
ATTAACCTGAAACAAAGACAGAAATGTCGCCTGCTCCCTCCAGAGTGGATGGATGTAGAAAAGTTGGAGAAGATG
AGGGATCATGAACGAAAGGAAGAACTTTTACCCCAATGCCCAGCCCTTACTACATGGAACCTACGAAGCTCCTG
TTAAATCATGCTTCAGACAACATCCCGAAGGCAGACGAAATCCGGACCCTGGTCAAGGATATGTGGGACACTCGT
ATAGCCAAACTCCGAGTGTCTGCTGACAGCTTTGTGAGACAGCAGGAGGCACATGCCAAGCTGGATAACTTGACC
TTGATGGAGATCAACACCAGCGGGACTTTCCTCACACAAGCGCTCAACCACATGTACAACTCCGCACGAACCTC
CAGCCTCTGGAGAGTACTCAGTCTCAGGACTTCTAGAGAAAGGCCTGGTGCAGGCGGCTTGCTGGGGGATGTGAG
CGCTCAGGATGTGATGAGGTACTCGTGGTTCTGGAGCTCTAGAAACACTTCTGATGCATGAAAAATGTGTGATGG
TGCAAGGAATGGATTCAAGGATGTTGTTGGAGAAACAAGTTTGTGATTAGTCCTTAAACTTAGCTCCCTGGGACA
TTCTTCAATTCACATCTGTTTCTAGAAACCAGCCCTTTTCCCCCCTTTTGGAGAAATAAAAAAGCCTTAGGT
AAATAAGTCATTCTCCCTAGCAGAGCCACTTGGGTCTCCTGCATGGAAGCCGTCACACTTGGGCAGGTGTTCACT
GACTGGTAGGTGTAGATACAGCAGGAGTGGCCATGTGGTCCACGGCTTTTACCCCTTCTGATCCTGATTCTT
GGGCTGAATTTAGACTCTCTCACAGAGGTGGCTCACAGAGAAGGATGGCAGATGGTGACGCCAACAAATGCTGACC
GGTGCTTATCCTCTAAGCCCTGATCCACAATAAAAAATGGACCAACTCAAAAAAAAAA

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FIGURE 4611

MDAAEVEFLAEKELVTIIPNFSLDKIYLIIGD LGPFNPGLPVEVPLWLAINLKQRQKCRLLPPEWMDVEKLEKMR
DHERKEETFTPMPSPYME LTKLLLNHASDNIPKADEIRTLVKDMWDTRI AKLRVSADSFVRQQEAHAKLDNLTL
MEINTSGTFLTQALNHMYKLRTNLQPLESTQSQDF

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FIGURE 4612

GGCACGAGGCTTCCCAGAGGCGCGAGTCGCTTTTCCAGGAGCCGAGGCCCAAACGGGGCCGGGCCTGAAGGGTCC
CCCGCCAGCCCCGCGGCCGCGCCATCAATCGCCGCCGCCTCGTCCCGCTTCTCGGCTGAGGCGCCGCGCGGCCAGG
CAGC~~G~~GGTCCAGGCCTCAGCCGCGCGCCAGGGGCCTCCGGGGCCCTCCCGGGTCAGCATGCCCGGGGTGAAACT
GACCACCCAGGCCTACTGCAAGATGGTGCTGCACGGCGCCAAGTACCCGCACTGCGCCGTCAACGGGCTCCTGGT
GGCCGAGAAGCAGAAGCCGCGTAAGGAGCACCTCCCCCTGGGCGGCCCGGCGCCACCACACCCCTCTTCGTGGA
CTGCATCCCCCTCTTCCACGGCACCTGGCCCTCGCCCCATGCTGGAGGTGGCTCTCACCCTGATTGATTTCATG
GTGCAAAGATCATAGCTACGTGATTGCTGGTTATTATCAAGCTAATGAGCGAGTAAAGGATGCCAGTCCAAACCA
GGTTGCAGAGAAGGTGGCCTCCAGAATCGCCGAGGGCTTCAGCGACACTGCGCTCATCATGGTAGACAACACCAA
GTTTACGATGGACTGCGTAGCGCTACGATCCACGTGTACGAGCACCATGAGAACAGATGGCGGTGCAGAGACCC
ACACCATGACTACTGTGAAGACTGGCCAGAGGCACAGAGGATCTCAGCCTCGCTCCTGGACAGCCGGTCTTACGA
GACGCTCGTGGATTTCGATAAACCACCTGGATGACATTCGGAATGACTGGACAAACCCAGAGATCAATAAAGCTGT
CCTACACTTGTGCTTAGGCAGGCACCGCTGTGACTGGGCTCCGGGCCTTCCACTACGTTGAAGAAGAAAACCTAT
TTTTAAATGTAAATAAAATATCTGGTAGCCTGTGTGGAAGCTGACCGTTTTAAGAAGTGGCATGTGCCTTGAAA
GGGGGCAGAAATGTTCAAGTCGGTCGTGTTTTTAACACAGAGTCTCTAGAAGAGGTGCAGACATCCCGTCTGACTGT
CCCTGTGGACTCTCTCAGTTGTATGTTGCTATAATCCTCCAAATCAAAGCTCTTTCTGCTTGTGCAAGATTGTTT
CTATTAAACAGTTTTAACTAACCTTTTATAATCTGGAGAGAATACTTTTTAAGGCTTTTGAAGTATCTTTTTTA
AAAAAAAAAAAAAGCCACATCTTATACTCCAATGAGTGTGTTTGTGAGTTTTATCCTGTTGAATTTTGATGT
CGTCCAGGCGTCTTGGGATCAGGGTAGACACGTGGAGTGTGCTGGTGTGAGCTGTTTGAGAAGCTCTGTGTGGGTG
TTTCTGTGGTCAGGTAGGCTGGGCTGTGAACAGCACTGCTCCACATGGTGTGCGGCTCACAGAGCCACCGCAACTC
TGCCACGCGGGAGTGACACCACTGATGCCACAGAAGCCTTTATCGTTAGGGGCAAAAGCAGACATCTCTGGTAGC
AGGAGCTCAGTGTGGTGCTCTTCAGCCACGCAGAAAGCTCACGTGCCTGCAGGGCCAGGAAAGGAAATGATCGT
TTCTTTTGTATTAGGAAAAACAAGACTTAGACTTCCCGAGTTGTGCAGAGTGACGTCTGTACTTTTTATACTTAG
AACATTTGGTCAAGTTTTGTAAACCAAACCTTAGGGAATTGAGAGGGAACTTTATGGTACGTTTACCTTTTTTCC
TTTTTATATGAATTATTTTGTACAAAGTTCAGAGAGCGGTACCTTTCCTACTGTCTTTCTTTGACTCCATGGAG
GAATTTGTAACGATCGGTGTGACCTGAAAGGGTTTGTGATACAGCGGTCACTATTTCTCTTAACACATAGGAAA
AAAGTTCAGACATCGCTACAATAAATGTGCTTTATTTGATCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4613

MPGVKLTTQAYCKMVLHGAKYPHCAVNGLLVAEKQKPRKEHLPLGGPGAHTLFVDCIPLFHGTLALAPMLEVAL
TLIDSWCKDHSYVIAGYYQANERVKDASPNQVAEKVASRIAEGFSDTALIMVDNTKFTMDCVPTIHVYEHENR
WRCRDPHHDYCEDWPEAQRISASLLDSRSYETLVDFDNHLDDIRNDWTNPEINKAVLHLC

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FIGURE 4614

CGACGTTTCGCAGCGCTACCCTTTTCCGCTCCACGGTGACCTCCGTGCGGCCGGGTGCGGGCGGAGTCTTCCTCGA
TCCCGTGGTGCTCCGCGGGCGCGGCCTTGCTCTCTTCCGGTCGCGGGACACCGGGTGTAGAGGGCGGTGCGGGCGG
GCAGTGGCGGCAGAAATGTTGGCTACCAGGGTATTTAGCCTAGTTGGCAAGCGAGCAATTTCCACCTCTGTGTGTG
TACGAGCTCATGAAAGTGTTGTGAAGAGCGAAGACTTTTCGCTCCCAGCTTATATGGATCGGCGTGACCACCCCT
TGCCGGAGGTGGCCCATGTCAAGCACCTGTCTGCCAGCCAGAAGGCACTGAAGGAGAAGGAGAAGGCCTCCTGGA
GCAGCCTCTCCATGGATGAGAAAGTCGAGTTGTATCGCATTAAAGTTCAAGGAGAGCTTTGCTGAGATGAACAGGG
GCTCGAACGAGTGGAAGACGGTTGTGGGCGGTGCCATGTTCTTCATCGGTTTCACCGCGCTCGTTATCATGTGGC
AGAAGCACTATGTGTACGGCCCCCTCCCGCAAAGCTTTGACAAAGAGTGGGTGGCCAAGCAGACCAAGAGGATGC
TGGACATGAAGGTGAACCCCATCCAGGGCTTAGCCTCCAAGTGGGACTACGAAAAGAACGAGTGGAAGAAGTGAG
AGATGCTGGCCTGCGCCTGCACCTGCGCCTGGCTCTGTCACCGCCATGCAACTCCATGCCTATTTACTGGAAACC
TGTTATGCCAAACAGTTGTACCACTGCTAATAAATGACCAGTTTACCTGAAA

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FIGURE 4615

MLATRVFSLVGKRAISTSVCVRAHESVVKSEDFSLPAYMDRRDHPLPEVAHVKHLSASQKALKEKEKASWSSL
DEKVELYRIKFESFAEMNRGSNEWKTVVGGAMFFIGFTALVIMWQKHVYVYGPLPQSFDKEWVAKQTKRMLDMKV
NPIQGLASKWDYEKNEWKK

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FIGURE 4616A

GTTCTAGAACATTCTCATCACCCATATTTACATTTATTTTTAATAACTCTCATGTGTAAGCTGAGTGTTTTAAAC
TTTAGAGACTTCTGGGGGTGCTGAACCTTGATAAAATATTTCAGTATACAAGTGTTCTTTATAGTTCACTCATCA
TTTTCATAGAATTAGGGTTTTAAATTAGAAAGTAATTTAGGCCATTTCCATCTCCTGTCCCTCAAATCCCAGCT
CAGTTTTGGGATGAGGTGTCAAGTATAAGTTTGTAAGTATGCCAGTCATTTGCACGGCTAAGAGAAACATCTAGA
GAAGTCTATATACGACTTGCTTAAAGCTGAATGTTGATTACTGTTTACATGATTTGGGTGATTTTAGTCACTGG
GACTGAGCTAATGGAGTTGAAGCATTGTTGCGGGCATTGTACCTCCAGACCAGTGTTGTAATACAAAGAGTTCTTG
CAGACATAGGACAGAATTGGAGAAACAGCTTCTAACAGTGGGAAGACTCTCAGTACAACCAAGCTATTTCCTTACC
TTTCTGATTTCTGAACCTTTTTTCCATGTGATACCTGCTGCTTTGAAGGCACTAAAATAACAGAAGCAGATAGAGC
AGAAATCCTCACTCAGATCTTCTCCTTCCCTACCTGTATAACAGTTTGTGGCTTGCCCTTGTCTGTTTTGTGCGTT
TCGTTACGCGTATGTGAGTATGTGCACGTGATTTCCAGAAAGGAGAAGCGCACGATACTGCCCGTGCTCTGTGAC
TCCTGAGTGCACGCTTCCCTGCTGCTTTGGGCTCCTAGGTCGGCCTCGTCTGTGGACGTTGCCCTTGTTCGTG
CCATCCACACATTCTGATGCCCCGCTGCTCTACTCTTTCTCCAGAGTACTTTTTCCAAACATGTGATTTGCACA
TTTGTATGTTTATTGTTTGTTTTCCACTTCTAGAAGTGTGCCACTAGGCAGGAATGTTTGATTTGTTCACTGAT
GATCCCAGATCTCTAGAACCTGCTTGCCTGTAGAGGGTGCTTGGTAAATGTGCTCTGAATGAATGGCTCCATG
ATCCTCGTTTCTAAGAGCTAGCACGATTTCTCACTCAGTCTGGTTGGACACAGGTTCCCTGGAACAGTGCTGTT
GTGGTTATCTTCTCACGTGCTTTGTTTCTGAACCTGAAACGCTTTGAGTTTTTTATTGTTTTTGTCTTCTCTCA
TTAGTTTGAGTCCCCTGTCAGATAGGCTTTCAATTTGTCCAGTCACTGTTTCCAGGGAGCCCTGAGGGCCTTGCCCC
ACGTCGACAGGTAACGTGTTTTTTTATTTTTTATTTTTTATTTTTGAGACGAAGTCTCGCTCTGTACACAGGCTGG
AGTGCAGCGGTGCGATCTCAGCTCACTGCAACCTCCGCTCCTGCGTTCAAGCGATTCTCCTGCCTCAGCCTTCC
GAGTAGCTGGGACTATAGGCACGTGCCGCCACGCCCCGCTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTAC
CATGTTAGCCAGGATGGTCTCGATCTCCTGACATCGTGATCCGCTGCTGCGCTGCCCTCCCAAAGTGCTGGGATTAC
AGGTGTGAGCCACCGCGCCAGCCCTGCAGGTAAGTGTAAATGTAGGAAGTGCTGCCTCTGGGCACCTTGCCCC
AGGGTTCATTAGCAGTTGCCCTGGTGGGTTTTTGTGGCTGTGATGAGAAGTGCTTCTGTTCCCCCTCCACCAC
ACTCTGCAACTGTTTAAACAGTGGCTGTGACCCCTGAGATGATCCAGGGTTTCAAGGCGTGACATGTCTGTG
TTTCGGTTTTTCAAGATATCACCTTGGGGTGACTCTCAACTTACATGGATTTTCAAAGATTTATTCAATATGTTT
TTCAGAAAGTGTGTGAAGAGCGAAGACTTTTGCCTCCAGCTTATATGGATCGGCGTGACCACCCCTTGCCGGA
GGTGGCCCATGTCAAGCACCTGTCTGCCAGCCAGAAGGCATTGAAGGAGAAGGAGAAGGCCTCCTGGAGCAGCT
CTCCATGGATGAGAAAGTCGAGTGTGGGTATTGAAGGGACCCACAGGCGCGCCAGCAGCTCTCGGAAGCGTGTG
TGTGACAGAGCCTCTGCTCACTTCTGGGCTACTGTCTAGAGGCAGTCTTGACAGGAGGGTGTCTGTCTGGGT
TTCGGGGTCACTGTGCCAGGGCCCCAGTTTATGTGCTCACCAGTCACTTAGCTCTGCCAGCTGACAGGATCTTTT
GCTAGGCCCCCTTCTCTGTGCTGAGTGGAGGTAGCCTCTCAGCATATCTGCTGGGTAAGACATAGTTAACTGTAA
ATTATTGAAAGAACTCAGCAAAATGCATAGTGTTTGGTATGAAAGGGGCAGAAAAATAACAAGATTAAATAGAC
CCTAATACTGTAATTCAAGTAAGAAATAATTTTGCAGTTTTAATTTGCACCTGAAGCGAAGTGTATGCATTTTCT
TCTTTCCTTGCCCTGTACATGCCTGCGTGGGCACGTGTGTGCACGTACGTGCGTGAACATGATGTGGCCTGGGT
TGGTGTATCCTTCAGCTCTGTGTTTCTCCTTCACAAGTGTGGTTTTTGGGGAGAAGTGGTTGAATGTTGCAGAGG
AGGGAGCTGCTGACCTTTGTGCCTGTAAATGGCTGTCTCTGCCCCCAGTGATCGCATTAAGTTCAAGGAGA
GCTTTGCTGAGATGAACAGGGGCTCGAACGAGTGGAAGACGGTTGTGGGCGGTGCCATGTTCTTCATCGGTTTTCA
CCGCGCTCGTTATCATGTGGCAGAAGCACTATGGTGAGTAGAGAGGGAGGAAGGCATGGGCGCCTGGACTGGGGC
TCCAGCCTGCAGTGCCATTGGTGGGCTGTGCGGGACCTCCATACCTTGAGGCTATGAGATAGGGACTGCATTCC
AGAGTTCATCTCAGGATTGTTTCCAGGCCCTGGTGACCTGGAGAAGTGAAGTCGTGGGAGGTTAGTTTATAAGCC
AGCATCTGATTATTCATAGCCATGCTTGTGGGTGGTGAAATACCTTAACTACTTTGTACAGCACACCACGTTTT
CAGTAGCAATTTATGTGCTCACCAGTCACTTAGCGAAAGATGACTTCGTGAAGGTTTCAGCAAGGATAAGGGGAC
TCATTCAATGAATGACTGTCTGGACTGTTGTGAGGACTGCATCTCAACAGCCAGCATCTGGGGTCCCGACCTGA
TAGTTTGTGTGTGGGCATTGCCGGGTGTCTGCTCGTGGTAATGACTCTCCCCGAGGTTCTTTCTGTCCAGGCA
GAACAGGCATTTTTGCTATCTGAATAGGTATATTCTCGTACTTTTGGTTTGAATGTGGATGTGGGTAAATAACAG
ACCCGAATCTATTTGATCTTCCAGGTCACCTTGGGCTCTGTTTGTGATCCTGTTATCCATAGCCTTTAGAGAG
GACCTTCTGCTTTTAGCTTATTTTGTGTGTAACTTTTTACAAACAAAGGGCTAATTTTAAATGTGAGTGTGTC
AGTGGTCAGAAACCGTGTGTTTGTGAGCGGGTGTGAGTGGCAGGTGGCTCTGCTGACCTGGTGGCTGGTGTGTCGG

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FIGURE 4616B

GAGGATTTAACCTGTGTGAGGGATTGGCCTAGAAACAACCTGTTGAGATAGTCTTGCCCCATAACCTGTCTCACA
CCGTAGTGTAACGGCCCCCTCCCGCAAAGCITTGACAAAGAGTGGGTGGCCAAGCAGACCAAGAGGATGCTGGACA
TGAAGGTGAACCCCATCCAGGGCTTAGCCTCCAAGTGGGACTACGAAAAGAACGAGTGGAAGAAGTGAGAGATGC
TGGCCTGCGCCTGCACCTGCGCCTGGCTCTGTACCGCCATGCAACTCCATGCCTATTTACTGGAAACCTGTTAT
GCCAAACAGTTGTACCACTGCTAATAAATGACCAGTTTACCTG

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FIGURE 4617

GCCGTTTTCTTTCCTGGTGTCCCGTCGCGGCTTGGGACCCGGCAAGATGGGCAAGAAGGGCAAGAAGGAGAAGAA
GGGCCGCGGCGCGGAGAAGACGCGCCCAAGATGGAGAAGAAGGTGTCTAAGCGCTCGCGGAAGGAGGAGGAAGA
CCTGGAAGCGCTCATAGCCCATTTCAGACACTCGATGCCAAGAGGACTCAGACTGTGGAACCTCCGTGCCCCC
ACCTCACCAAGGTAAATGCCTCCCTCTCGGTTTCATCCTGAGAAAGATGAGTTAATCCTTTTTTGGAGGTGAATA
TTTCAACGGCCAAAAAATTTTTGTATAACGAGCTCTATGTCTACAATACCAGAAAGGACACCTGGACCAAAGT
TGACATCCCCAGTCCACCTCCGAGGCGCTGTGCTCACCAGGCGGTGGTAGTGCCTCAAGGTGGCGGACAGCTGTG
GGTCTTTGGAGGGGAGTTTGCTCTCCCAACGGAGAGCAGTTCTACCACTACAAGGATCTCTGGGTCTGCAATTT
GGCCACCAAGACCTGGGAACAAGTCAAATCAACAGGCGGTCTTCGGGTGCGGAGTGGACATCGGATGGTGGCCTG
GAAGAGACAATTGATCCTGTTTGGTGGCTTCCATGAAAGTACACGGGATTACATCTACTACAACGACGTGTATGC
CTTTAATCTGGACACCTTCACATGGAGCAAGCTGTCCCCGTGAGGGACGGGGCCACACCCAGATCAGGCTGCCA
GATGTCCGTCACTCCCCAGGGCGGCATCGTTCGTCTATGGGGGCTACTCGAAACAGAGAGTTAAGAAAGACGTGGA
CAAGGGCACACGGCACTCAGACATGTTCTGCTGAAGCCAGAGGACGGAAGAGAAGACAAGTGGGTTTGGACTCG
GATGAACCCCTTCGGGGGTCAAGCCCACCCACGGTCTGGCTTTTCCGTGGCCATGGCCCCGAATCACCAGACACT
GTTCTTCGGGGGTGTCTGTGACGAGGAAGAGGAGGAGAGCCTGTGCGGCGAGTTCTTCAACGATCTGTACTTCTA
CGACGCCACCAGGAACCGTTGGTTTGAGGGACAGCTGAAGGGACCCAAGTCTGAAAAGAAGAAACGCAGGCGGGG
CAGAAAAGAGGAGCCCGAAGGTGGTAGCAGGCCGGCGTGTGGGGGAGCTGGCACCCAGGGGCTGTGCAGCTGGT
CAAGGAGGTGGTGGCCGAGGATGGCACCCTGGTCAACATTAAGCAGGTGCTCACCGCGCCAGGCTCGGCGGGGCA
GCCCCGGTCTGAGGACGAAGACAGCCTTGAGGAGGCCGGCAGCCCCGACCTGGGCGGTGTCCACGCTCCAACGC
CATGCTGGCTGTGAAGCATGGGGTGCTCTACGTCTATGGGGGATGTTTGAGGCCGGCGACCGCCAGGTCAACCT
CAGCGACCTGCACTGCCTGGACCTGCACAGGATGGAGGCGTGGAAGGCCTTGGTGGAGATGGACCCAGAACTCA
GGAGTGGCTGGAGGAGACGGACTCGGAAGAGGACAGTGAGGAGGTTGAGGGCGCCGAGGGTGGGGTCGACGACGA
AGACAGCGGAGAGGAGAGCGGTGCGGAGGACTGAGAAGAGCCCCCTGCCAGGGGCGCCTGGCAAGTGCTGTGCCA
CGTCCGCCCAGGACCCAGCCGTGTTGAGTGAAGCTCTTGGGGCCAGCGTGCGTCTTGACGCACAGGAGAGAGCTG
AAGGTGGGTGGCCAGGCCAGGGTGTGAACCTTCTCCCATGGTTTAGTCTCTGACGCGGCACTGGGCCGGAAGTT
CAACTGAGTGCAGTGCAGGTGGATTCCCTCAGCAGCCTGTGTGTTGTGTGAAATAAATTGGACTTGAAACAAGAA
AAAAAAAAAAAAA

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FIGURE 4618

MGKKGKKEKKGRGAEKTAAMEKKVSKRSRKEEEDLEALIAHFQTLDAKRTQTVELPCPPPSPRLNASLSVHPEK
DELILFGGEYFNGQKTFLYNELYVYNTRKDTWIKVDIPSPPPRRCAHQAVVVPQGGGQLWVFGGEFASPNGEQFY
HYKDLWVLHLATKTWEQVKSTGGPSGRSGHRMVAWKRQLILFGGFHESTRDYIYYNDVYAFNLDFTWSKLSPSG
TGPTPRSGCQMSVTPQGGIVVYGGYSKQRVKKDVKGTRHSDMFLLKPEDGREDKWVWTRMNP SGVKPTPRSGFS
VAMAPNHQTLFFGGVCDEEEESLSGEFFNDLYFYDATRNRWFEGQLKGPKSEKKRRRRGRKEEPEGGSRPACGG
AGTQGPVQLVKEVVAEDGTVVTIKQVLTAPGSAGQPRSEDEDSLEEAGSPAPGPCPRSNAMLAVKHGVLYVYGGM
FEAGDRQVTLSDLHCLDLHRMEAWKALVEMDPETQEWLEETDSEEDSEEVEGAEGGVDDSDSGEESGAED

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FIGURE 4619

GGCTGTGACTAGCGGGCCGGCCCGGGCCAGGACAGCGGGCGGCGGGCGGCGGGCCCTGGCCCCGGGATGGCTAT
GTTCCGCAGCCTGGTGGCCTCGGCTCAGCAGCGGCAGCCGCCGGCCGGGCGGGCGGGCGGCGACAGCGGCCTGGA
GGCGCAGTACACCTGCCCCATCTGCCTGGAGGTCTATCACCGGCCCGTGGCCATCGGCAGCTGCGGCCACACGTT
CTGCGGGGAGTGTCTCCAGCCCTGCCTGCAGGTGCCATCCCCGCTGTGCCCCTGTGCGGCATGCCCTTCGACCC
CAAGAAGGTGGACAAGGCCACCCACGTGGAGAAGCAGCTCTCATCTACAAAGCGCCCTGTGAGGCTGCAACAA
AAAGGTGACCCTGGCAAAGATGAGAGTGCACATTTTCGTCTGCCTGAAGGTCCAGGAGCAGATGGCCAACCTGCCC
CAAGTTCGTCCCCGTGGTGGCCACATCACAGCCTATCCCCAGCAACATCCCCAACAGGTCCACCTTCGCCTGCCC
GTACTGTGGTGGCCGCAACCTGGACCAGCAGGAGCTGGTGAAGCACTGTGTGGAAGCCACCGCAGCGACCCCCAA
CCGCGTGGTGTGCCCCATCTGCTCGGCAATGCCCTGGGGGGACCCAGCTACAAGAGCGCCAACCTTCCTGCAGCA
CCTGCTTCACCGACACAAGTTCTCCTACGACACCTTTGTGGACTACAGTATTGACGAGGAGGCCGCTTCAGGC
TGCTCTGGCCCTGTCTCTCTCTGAGAACTTGAAGGGGAAGCGCAGCCACCCGCCTGCGTCTGGGGTCAGGGATGTCC
CCGCTCCTGTGTGCGACCTGGCACCTGCTCGGGAGTGCACCTCACCGGACTGAGCTCACAGGAGGAGCCTGCACC
CGCGCAGAAGGGGAGCCGGGGCCGAGCCTCCGGGCTGAATACGGGCCAGCCGCCGAGGCCGCCAGAGCAGGGCC
GCCTGGTCCCACCGGCGTCTGCTGGGTTCCTCGGTGCTTCTGGCCGAGCAGGCGGCCTACTTGGGCAGGGCTGGAC
GCTGAGACCTGGAGCTGCCACCGTCTCTTCAAGCCATGATACCCCTCGTGGGAAGAAGGGACCGACGCGCAGT
CGCGGCTGCGCAGTCGAGCCCGGGAGGAACCCAGGCTGCTGCCCTGGCCAGCCCGACCTGCCCCGGCCCCACTT
CCACCTTGCGCATTTGGTACTGGCTTTTGTGATACTTAGGAACCTGGCATCTTTTCTATATTATCCAGTGTGAT
AATCTTTTCACGTTTTATAGAGCAAAGACAGAGCAGTTACTCTTCATATTGCAATATCTGTGTTTGACTAGGAAT
AATAGTATTTTTATGGAACATTTACAAAATTATATTTTTTAAGAAAAAATCAAAAACAAGCATTGGGGGATTGGG
GCAAGGATGGAAGGAGCAGTGGGGCAGCTGCCAGAGCTCAGGCGAGCCATGGGGTCTGCTGTGGGGTCTGCCCTG
GCCACCCACTGTGTGTCTGGGTCTTGGGTTTGTACGTTTCTTTGATGACCAGGAAGAAATCCCAGCACCCC
AGCCACAGGCTGTGGCTGCTCCAGCAGAGGCGGGGCCGAGAGAAGGGGCTCCTCCACCCAGAGTCTGGCC
TTGGCCCGCTGTACCTTCAAAGCTGACTGTGCCCCGCTGCGGGAGGGGACGGCACCCAGTGGTGGCAGAGCTT
GGGGGCTGGGCAGGGGCCGCTTGGCGGGCCGGGCAACACGTCAACATTCTTTTCTGTTCTTGGCATTAAATTAT
TGCTGTCTTTTTTTTTAAAAAAAAGTTTAAATAAAATGTCTCAGAGC

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FIGURE 4620

MAMFRSLVASAQQRQPPAGPAGGDSGLEAQYTCPICLEVYHRPVAIGSCGHTFCGECLQPCLQVPSPLCPLCRLP
FDPKKVDKATHVEKQLSSYKAPCRGCNKKVTLAKMRVHISSCLKVQEQMANCPKFVPVPTSQPIPSNIPNRSTF
ACPYCGARNLDQQELVKHCVESHRSDPNRVVCPICSAMPWGDPSYKSANFLQHLLHRHKFSYDTFVDYSIDEEAA
FQAALALSLEN

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FIGURE 4621

CTCCGACGTCATCGGGGCGCGCCCTCGCGCTGTGCGCGCCACAGTCTGCGACGGGACCCGGCGTGCCCATGTGTC
AGGTGGGCGAGGACTACGGGGAGCCGGCGCCTGAGGAGCCGCCCGGCGCGCGGCCAGGGACTGTTTCAAGG
CCTTCTACGTCCACAAGTTTCAAGAGCCATGCTGGGCAAGAACCGGCTCATCTTTCCAGGCGAGAAGGTGCTCTTGG
CGTGGTCTGGGGGGCCTTCGTCCAGCTCCATGGTCTGGCAGGTTCTTGAGGGCCTGAGCCAAGATTCTGCCAAAA
GACTGCGCTTTGTGGCAGGAGTCACTTTTGTGACGAGGGAGCAGCCTGTGGCCAGAGCCTAGAGGAGAGATCAA
AGACCCTGGCCGAAGTGAAGCCCATTCTGCAAGCAACTGGGTTCCCATGGCATGTGGTGGCCTTAGAGGAGGTGT
TCAGCCTGCCACCGTCGGTGCTTTGGTGCTCTGCCCAGGAGCTAGTGGGATCCGAGGGGGCCTACAAGGCGGCCG
TGGACAGCTTCCTCCAGCAGCAGCATGTGCTGGGGGCCGGGGGTGGTCTGGCCCCGACTCAAGGGGAGGAACAGC
CACCCAGCCCCCGCTGGACCCCCAGAACCTGGCAAGACCGCCTGCCCCTGCCCAGACTGAGGCTCTTTCCCAAC
TGTTCTGCTCAGTGAGGACACTGACTGCCAAGGAGGAGCTTCTGCAGACCCTGCGGACCCACCTGATCCTCCACA
TGGCCCGAGCCACGGCTACTCCAAGGTATGACTGGGGACAGCTGCACACGCTTGGCTATCAAGCTCATGACCA
ACCTGGCGCTGGGTGCGAGGGGCCTTCTGGCCTGGGATACGGGCTTCTCGGATGAGCGGCACGGGGACGTGGTGG
TGGTGCGGCCCATGCGGGACCACACCCTGAAGGAGGTGCTTTCTACAACCGCCTGTTCTCTGTTCTTCTGTCT
TCACACCAGCCGTCGACACCAAGGCCCCCTGAAAAGGCCAGCATCCACCGCTGATGGAGGCCTTCATCCTCAGGC
TGCAGACCCAGTTCCCTCCACTGTCAGCACTGTGTACAGGACAAGTGAGAAGCTGGTGAAGGGCCCCCGGGATG
GCCCTGCTGCTGGCGACTCCGGCCCCCGCTGCCTCCTCTGCATGTGTGCCCTGGACGTGACGCGCTGACAGTG
CCACGGCTTTTGGGGCTCAGACCTCCTCGCGTCTCTCCAGATGCAGTCACCCATCCCCCTGACTGAGACCCGGA
CACCCCGGGGCCCTGCTGTTCTCCAGGGGTGGGCTGGGCCCAGCGCTGCGGCCAGGGGGCCTGTAGGAGGGAGG
ACCCCAAGCCTGCATTGAGGAGCAGCTGTGCTACAGCTGCCGCGTGAACATGAAGGACTTGCCCTCACTGGACC
CCCTGCCGCGTACATCCTGGCTGAGGCCCAGCTCCGCACACAGAGGGCCTGGGGCTTGACAGGAGATCCGGGACT
GTCTGATTGAGGACAGTGACGACGAGGCGGGCCAGAGCTGAGCGTGAGGACGTGCTTGCCGGGACAGCAGGCAGT
GGCCACCTGGTACACCACACTGGAGCCGGAAGGCAAGGACGGGGGACTGGCCTCTGATTGTCCATTTGTATAAAT
AAAACATTTTTTAATT

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FIGURE 4622

CGCGCACTCCGCCGCCATGGAGCAGCGCCGCGTCACCGACTTCTTCGCGCGCCGCCGCCCGGGCCCCCGCAT
CGCGGCGCCCAAGCTGGCCTGCCGCACCCCCAGCCCCGCCAGGCCCGCACTCCGCGCCCCGGCCTCCGCTACCAG
TGGCAGCCGCAAGCGCGCCCCGCCCGCCCGCCCGCCCCGGACGCGACCAGGCCAGGACACCGGCCCGCAGGAGACT
GCGGCTGTGCGGTGGACGAGGTTTCCAGCCCCAGTACCCCCGAGGCCCCAGACATCCCAGCCTGCCCTTCTCCGGG
CCAGAAGATAAAGAAATCCACCCCCGGCAGCAGGTCAGCCGCCCCACCTGACATCCGCGCAGGACCAGGACACCAT
CTCTGAGCTTGCCTCATGCCCTGCAACGGGGCCCCGGGAGCTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGCCCA
GGATGCTGGGGAGTCTTGCACCCCAGAGGCCGAGGGCGGCCCTGAGGAGCCATGTGGCAGAAAGGCGCCCGCCTA
CCAGCGCTTCCATGCCCTGGCCCAGCCCCGGCCTGCCGGGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGA
GATGTTCCGCAGCATGGACACCATCGTGGGCAATGCTCCACAACCGCTCCGAGACGCCCCACCTTTGCCAAGGTCCA
GCGGGGCGTCCAGGACATGATGCGTAGGCGTTTTGAGGAGTGCAATGTTGGCCAGATCAAAAACCGTGTACCCGGC
CTCCTACCGCTTCCGCCAGGAGCGCAGTGTCCCCACCTTCAAGGATGGCACCAGGAGGTGAGATTACCAGCTCAC
CATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCAGCCCCCAGCTCACGGCCTCGCGCCTCCTGCAGCGACG
GCAGATCTTCAGCCAGAAGCTGGTGGAGCATGTCAAGGAGCACCACAAGGCCTTCCTGGCCTCCCTGAGCCCCGC
CATGGTGGTGCCGGAGGACCAGCTGACCCGCTGGCACC CGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCC
GGCCGCGCTGCCCCAGCCACCCGCCACGGAGAAGCTCACCCTGCTCAGGAGGTGCTGGCCCCGGGCCCCGCAACCT
GATTTACCCAGGATGGAGAAGGCCTTGAGTCAATTGGCCCTGCGCTCTGCTGCGCCAGCAGCCCCGGGTCTCC
CAGGCCAGCACTGCCGGCTACCCACCCAGCCACCCCGCTGCAGCCTCTCCCAGTGCTCTGAAGGGGGTGTCCCA
GGATCTGCTGGAGCGGATCCGAGCCAAGGAGGCACAGAAGCAGCTGGCACAGATGACGCGGTGCCCGGAGCAGGA
GCAGCGGCTGCAGCGCTTAGAACGGCTGCCTGAGCTGGCCCCGCGTGCTGCGGAGCGTCTTTGTGTCCGAACGCAA
GCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATGGTGGGCAGCTGTTGTAATCATGAGCCCTGGGGAAAT
GGAGAAGCACCTGCTGCTCCTCTCCGAGCTGCTGCCGGACTGGCTCAGCCTCCACCGCATCCGCACCGACACCTA
CGTCAAGCTGGACAAGGCCGCGGACCTCGCCCACATCACTGCACGCTGGCCCCACCAGACAGTGCTGAGGAGGG
GCTGTGAGCCTGGGGGCCACTGTGGACAGAGCTGGGCTTCAGAAGCTCGCTGGCCTGGGCCCCACCAGCATTTCT
TTTATGAACATGATACTTTGGCCTTCCTTTCCCGAGCGCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGC
TGCACAGCCCAGGGTCTCTGGCTGCGGGCGGTGGGCCCTTCATGGGGCTCACCTGGTGGATTACATTAAACC
GGTTTCTGTGGC

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FIGURE 4623

MFRSMDTIVGMLHNRSETPTFAKVQRGVQDMMRRRFEECNVGQIKTVYPASYRFRQERSVPTFKDGTTRSDYQLT
IEPLLEQEADGAAPQLTASRLQRRQIFSQKLVEHVKEHHKAFSLASLPAMVVPEDQLTRWHPRFNVDEVDPDIEP
AALPQPPATEKLTTAQEVLARARNLISPRMEKALSQALALRSAAPSSPGSPRPALPATPPATPPAASPSALKGVSQ
DLLERIRAKEAQKQLAQMTRCPEQEQLRQLERLPELARVLRVSVFVSEKFPALSMEVACARMVGSCCTIMSPGEM
EKHLLLLSELLPDWLSLHRIRTDITYVKLDKAADLAHITARLAHQTRAEEGL

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FIGURE 4624

AGCCCGGGGCAGCCAGCAGTACCGGGCCCTGACCGTGCCCGAGCTCAGCCAGCAGATGTTTCGATGCCAAGAACAT
GATGGCGCCGCAATGTCATGAAGGAGGTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCG
TGGAGTGGATCCCCAACACGTGAAGGTGGCCGTGTGTGACATCCCGCCCCGCGGCCCTCAAGATGTCCTCCACCT
TCATCGGGAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTACCGGCCATGTTCCGGCGCA
AGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACG
ACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGG
AGGAGTCGGAGGCCCGAGGGCCCCAAGTGAAGCTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGCCGGGGCCGAA
GCCAGCAGTGTCTAAACCCCCGGAGCCATCTTGCTGCCGACACCCCTGCTTTCCCTCGCCCTAGGGCTCCCTTGC
CGCCCTCCTGCAGTATTTATGGCC

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FIGURE 4625

MAVQGSQRRLLGSLNSTPTAIPQLGLAANQTGARCLEVSISDGLFSLGLVSLVENALVVATIAKNRNLHSPMYC
FICCLALSDLLVSGSNVLETAVILLLEAGALVARAAVLQQLDNVIDVITCSSMLSSLCLGAIIVDRYISIFYAL
RYHSIVTLPRARRAVAAIWVASVVFSTLFIAYYDHVAVLLCLVVFFLAMLVLMVLYVHMLARACQHAQGIARLH
KRQRPVHQGFGLKGAVTLTILLGIFFLCWGPFFLHLTLIVLCPEHPTCGCIFKNFNLFLALIICNAIIDPLIYAF
HSQELRRTLKEVLTCSQDRALVSWDVKSLGGSVCQELLPQQPQEKGLCDQKASSTALQRLLOKEFWEVISDEH
GIDPSGNYVGSDSLQLERISVYYNEASSHKYVPRAILVDLEPGTMDSVRSGAFGHLFRPDNFIGQSGAGNNWAK
GHYTEGAELVDSVLDVVRKECENCDCLOGFQLTHSLGGGTGSGMGTLISKVREEYPDRIMNTFSVVPSPKVS
DTVVEPYNATLSIHQLVENTDETYCIDNEALYDICFRTLKLATPTYGDLNHLVSATMSGVTTSLRFPQQLNADLRKL
AVNMVFPFRLHFFMPGFAPLTARGSQYRALTVPELTQQMFDAKNMMAACDPRHGRYLTVATVFRGRMSMKEVDE
QMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMSSTFIGNSTAIQELFKRISEQFTAMFRRKAFLHWYTGE
GMDMEFTEAESNMNDLVSEYQQYQDATAEEEGEMYEDDEESEAQGP

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FIGURE 4626

GGAGAGGGTGTGAGGGCAGATCTGGGGGTGCCAGATGGAAGGAGGCAGGCATGGGGGACACCCAAGGCCCCCTG
GCAGCACCATGAACTAAGCAGGACACCTGGAGGGGAAGAACTGTGGGGACCTGGAGGCCTCCAACGACTCCTTCC
TGCTTCCTGGACAGGACTATGGCTGTGCAGGGATCCCAGAGAAGACTTCTGGGCTCCCTCAACTCCACCCCCACA
GCCATCCCCCAGCTGGGGCTGGCTGCCAACCAGACAGGAGCCCGGTGCCTGGAGGTGCCATCTCTGACGGGCTC
TTCCTCAGCCTGGGGCTGGTGAGCTTGGTGGAGAACGCGCTGGTGGTGGCCACCATCGCCAAGAACCGGAACCTG
CACTCACCCATGTACTGCTTCATCTGCTGCCTGGCCTTGTCCGACCTGCTGGTGAGCGGGAGCAACGTGCTGGAG
ACGGCCGTCATCCTCCTGCTGGAGGCCGGTGCCTGGTGGCCCGGGCTGCGGTGCTGCAGCAGCTGGACAATGTC
ATTGACGTGATCACCTGCAGCTCCATGCTGTCCAGCCTCTGCTTCCTGGGCGCCATCGCCGTGGACCGCTACATC
TCCATCTTCTACGCACTGCGCTACCACAGCATCGTGACCCTGCCGCGGGCGCGCAAGCCGTTGCGGCCATCTGG
GTGGCCAGTGTCGTCTTCAGCACGCTCTTCATCGCCTACTACGACCACGTGGCCGTCCTGCTGTGCCTCGTGGTC
TTCCTCCTGGCTATGCTGGTGCTCATGGCCGTGCTGTACGTCCACATGCTGGCCCGGGCCTGCCAGCACGCCCAG
GGCATCGCCCGGCTCCACAAGAGGCAGCGCCCGGTCCACCAGGGCTTTGGCCTTAAAGGCGCTGTACCCTCACC
ATCCTGCTGGGCATTTTCTCCTCTGCTGGGGCCCCTTCTTCCTGCATCTCACACTCATCGTCCCTCTGCCCCGAG
CACCCACGTGCGGCTGCATCTTCAAGAACTTCAACCTCTTTCTCGCCCTCATCATCTGCAATGCCATCATCGAC
CCCCTCATCTACGCCTTCCACAGCCAGGAGCTCCGCAGGACGCTCAAGGAGGTGCTGACATGCTCCTGGTAGCG
CGGTGCACGCGCTTTAAGTGTGCTGGGCAGAGGGAGGTGGTGATATTGTGTGGTCTGGTTCCCTGTGTGACCCTGG
GCAGTTCCTTACCTCCCTGGTCCCCGTTTGTCAAAGAGGATGGACTAAATGATCTCTGAAAGTGTTGAAG

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FIGURE 4627

MAVQGSQRRLLGSLNSTPTAIPQLGLAANQTGARCLEVSISDGLFSLGLVSLVENALVVATIAKNRNLHSPMYC
FICCLALSDLLVSGSNVLETAVILLLEAGALVARAAVLQQLDNVIDVITCSSMLSSLCFLGAIADVDRYISIFYAL
RYHSIVTLPRARQAVAAIWVASVVFSTLFIAYYDHVAVLLCLVVFFLAMLVLMVLYVHMLARACQHAQGIARLH
KRQRPVHQGFGLKGAVTLTILLGIFFLCWGPFFLHLLTLIVLCPEHPTCGCIFKNFNLFLALIICNAIIDPLIYAF
HSQELRRTLKEVLTCW

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FIGURE 4628

GCATAGGCTAGGTAGCGAGGCCGCGTGTGAATCGGCCGAGGCCGAGTTTCTGCGCTTCCTTCTCCCTCTCTCCAG
ACGTGCTGGTTCGTTTCGGTCCTATGTCGCGCCGGGCCCTCCGGAGGCTGAGGGGGGAACAGCGCGGCCAGGAGCCC
CTCGGGCCCCGGCGCCTTGCATTTTCGATCTCCGTGATGACGATGACGCGGAAGAAGAAGGGCCCCAAGCGGGAGCTT
GGTGTCCGGCGTCCCGGGGGCGCAGGGAAGGAGGGCGTCCGAGTCAACAACCGCTTCGAGCTGATAAACATTGAC
GATCTTGAGGATGACCCTGTGGTGAACGGGGAGAGGTCTGGCTGTGCGCTCACAGACGCTGTGGCACCAGGGAAC
AAAGGAAGGGGTGACGCTGGAAACACAGAGAGCAAGACGGATGGAGATGACACCGAGACAGTGGCCTCAGAGCAG
TCTCATGCAAGTGGCAAACCTCCGGAAGAAGAAAAAACAAGAAAAGCAGCACGGGAGAAGCATCG
GAAAACGGACTAGAAGATATCGATCGCATCTTAGAGAGGATTGAGGACAGCACTGGGTGAACCGTCCCGGGCCCCA
GCTCCCTGAGCTCCAGGAAGCACGTTCTCTACGTGGAGCACAGACACTTGAATCCAGACACAGAACTGAAAAGG
TATTTTGGTGCCCGGGCAATCCTGGGGGAGCAAAGGCCACGGCAGAGACAACGTGTGTACCCCAAGTGCACATGG
CTGACCACCCCTAAAAGCACCTGGCCCCGCTACAGCAAACAGGTCTGTCCATGCGGCTGCTGGAATCAAAAAA
GGCCTCTCCTTCTTTGCGTTTGAGCACAGTGAGGAGTACCAGCAGGCTCAGCACAGTTCTGTTGGCCGTGGAG
TCTATGGAGCCGAACAACATCGTGGTTCTGCTCCAGACGAGCCCTTACCAGTTGACTCACTCCTGCAGCTCAGC
GATGCCTGCCGCTTTCAAGAGGATCAGGAGATGGCTCGAGACCTCGTAGAGAGAGCGCTGTACAGCATGGAATGT
GCGTTCACCCCTGTTCAGTCTCACCAGTGGGGCCTGCCGGCTGGATTACCGCAGACCCGAGAACAGGAGCTTC
TACCTGGCCCTCTACAAGCAGATGAGCTTCTTGGAGAAGCGAGGCTGCCCGCGCACGGCGCTGGAGTACTGCAAG
CTCATCCTGAGTCTCGAGCCGGATGAGGACCCCTCTGCTATGCTGCTGCTCATCGACCACCTGGCCTTGGGGCC
CGGAACCTACGAGTACCTGATCCGCCTCTTCCAGGAGTGGGAGGCTCATCGGAACCTGTCCAGCTCCCTAATTTT
GCCTTCTCTGTTCCACTGGCGTATTTCTGCTGAGCCAGCAGACAGACCTCCCTGAGTGTGAGCAGAGCTCTGCC
AGGCAGAAGGCCTCTCTCCTGATACAGCAGGCGCTCACCATGTTCCCTGGAGTCTCTCTGCCCTGCTCGAGTCT
TGCAGTGTGCGGCCCGACGCCAGCGTTTCCAGTCACCGCTTCTTTGGACCCAATGCTGAAATAAGCCAGCCCCCT
GCCCTGAGCCAGCTGGTGAACCTGTACCTTGGGAGGTACACTTTCTCTGGAAGAGCCCGCCACCATGAGCTGG
CTGGAGGAGAACGTCCACGAGTTCTGCAAGCAGTGGACGCCGGGGACCCAGCCGTGGAAGCCTGTGAGAACC GG
CGGAAGGTGCTCTACCAGCGTGCACCCAGGAATATCCACCGCCATGTGATCCTCTCTGAGATCAAGGAAGCCGTC
GCTGCCCTGCCCCCGGACGTGACCACGAGTCTGTGATGGGGTTTGATCCTCTGCCTCCTTCGGACACAATCTAC
TCCTACGTGAGGCCAGAGAGGCTAAGTCTATCAGCCATGGAACACCATTGCTCTCTTCTTCCGGTCACTGTTG
CCAACTATAACCATGGAGGGGGAGAGGCCCGAGGAAGGAGTGGCTGGGGGTCTGAACCGCAACCAGGGCCTGAAC
AGGCTGATGCTGGCTGTGCGCGACATGATGGCCAACCTTCACCTCAACGACCTGGAGGCGCCGACGAGGACGAC
GCTGAGGGGGAGGGGGAGTGGGACTGAGCGTCCGAGAGGTGACCGAAAAGCCGTATGATGATGTTCCCGATTTT
TCTGTTGGTCGGAGTCGGCCAGTTGCCTGAAGTAGGGAAGCTGAGTGTGTCGCTCCCTGGTCCACTGTTTCTCCT
ATAAATGTAAATGGGTC

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FIGURE 4629

MSRRALRRLRGEQRGQEPLGPGALHFDLRDDDDAEEEGPKRELGVRRPGGAGKEGVRVNNRFELINIDDLEDDPV
VNGERSGCALTDAPGNKGRGQRGNTESKTDGDDTETVPSEQSHASGKLRKKKKQKNKKSSTGEASENGLEDI
DRILERIEDSTGLNRPGPAPLSSRKHVLYVEHRHLNPDTELKRYFGARAILGEQRPRQRQVYPKCTWLTPKST
WPRYSKPGLSMRLLSEKGLSFFAFEHSEYQQAQHKFLVAVESMEPNNIIVLLQTSPYHVDSSLQLSDACRFQE
DQEMARDLVERALYSMECAFHPLFSLTSGACRLDYRRPENRSFYALALYKQMSFLEKRGCPRTALEYCKLILSLEP
DEDPLCMLLLIDHLALRARNYEYLIRLFQEWEAHRNLSQLPNFAFSVPLAYFLLSQQTDLPECEQSSARQKASLL
IQQALTMFPGVLLPLLESCSVRPDASVSSHRFFGPNAEISQPPALSQLVNLYLGRSHFLWKEPATMSWLEENVHE
VLQAVDAGDPAVEACENRRKVLYQRAPRNIHRHVILSEIKEAVAALPPDVTQTQSVMGFDPLPPSDTIYSYVRPER
LSPISHGNTIALFFRSLLPNYTMGERPEEGVAGGLNRNQGLNRLMLAVRDMANFHLNDLEAPHEDDAEGEGEW
D

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FIGURE 4630

ATGGTGACGCACGCCGCTGGCGCGAGGACCTTTTGTGAGGAGCAAAAGAAGGGATCCACCTATTTCAGTTCCAAAA
TCTAAGGAGAAGTTGATGGAGAAGCATTCCCAGGAAGCCAGGCAGGCAGACAGGGAGTCGGAGAAGCCTGTGGAC
AGCCTCCACCCGGGGGCGGGACAGCCAAGCACCCGCCCGCCGGCAGCTTCGCTGGAAGAGAAACCTGATGTAAAG
CAAAAGTCCAGCAGGAAGAAAGTGGTCGTTCCACAGATCATCATCACGCGAGCGTCGAATGAGACGCTAGTCAGT
TGCAGTTCCAGCGGGAGTGACCAGCAGAGAACCATTTCGGGAGCCGGAGGACTGGGGCCCCCTACCGCGGCACAGG
AACCCAGTACAGCAGACGCCTATAATTACATCTCAAAGAATAAACAAGCACCTTTGCATGGCACTCGCTACTC
CCTGCGATAGGCGTCTCGGGAACAGCCGCCTCACCTGTGAGAAGCCGAGGCCCTTCTCCAGTGCTCTCGGGGA
GGTTGCACCAGGCCACCCACCCCTGTGAGAACTGCAGCCCCCTTCTCCAGTGCTTTTCGGGGAGGGTGCACCAG
GCCCCCCCCACCTTGTGAGAAGCCGTGGCCCCCTTCTCCAGTGCTCTCAGGGAGGGTGCACCAGGCCCTGCCCCG
CCGTGAGAACTGCAGTCCCCTTCTCCAGTGCTCTCGGGGAGGGTGCACCAGGCCACCCACCCCTGTGAGAACC
TGCAGCCCCCTTCTCCAATGCTCTCGGGGAGGGTACACCAGGGTTGCCACCCCTGTGAGAAGCCACCGCCCCCT
TCTCCAGTGCTCTCGGGGAGGGTGCACCAGGGCTGCCCCACGCTGTAAGAAGCCGCCGCCCTTCTCCAGTGCT
CTCCAGCCCCCCCCACCCCTGTGAGAAGCCATGGCCCCCTTCTCCAGTGCTTTTGGGGAGGGTGCACCAGGGCCACC
CCACCCCTGTGAGAAGCCGTGGCCCCCTTCTCCAGTGCTTTTCGGGGAGGGTACACCAGGCCGCCCCACCCCTGTGA
GAAGCCGTGGCCCCCTTCTCCCGTGCTCTCAGGGAGGGTGCACCAGGCCCTGCCCCCGCTTGAGAACTGCAGCC
CCCTTCTCCAGTGCTCTGGGGGAGGGTGCACCAGGCCCTGCCACCCCTGTGAGAACTGCACCCCTTCTCCAGTG
CTCTCGGGGAGGGTGCACCAGGCCGCCCCACCCCTGTGAGAAGCCGCAGCCCGTTCTCCATTGCCATTTGGTCCT
GCCTTCCCCAGAGCTGCTAGCAGCTCGGTGAGGCAAGAGTGACTGGCTCAGAGAGCGAGCTTTGTGGTATTGAT
AAATGAATAAATTAGTATGTTTCATGTTGGAAGTGGCTGGCTCTGCAGAGTGATGGACAGCAGGTGGCATCTTACA
TTGTGATTTGTGGTGCACAGTTAAACACTTCCCTTCGTTTCAGAAGGAGACAATGTGAATACTTGAAATTATA
GTGAATAAGATGCCTCCCAAACCTTGAGGAAAAGGTCAGATTCTAAGAGCTAAACGTTAAGATGTAATGTTCCAGA
ACAAAGAGGCCCAGAGTCACTGAACGGGGCCCCAGGGCTCCTAGCTTGAGTGTAATCTGAGTCAGCTTATGAAAA
GGCCCCAAAGAAGAAAGTGGAATGTGTGCTGGGCACATGGGACAGCCATGGCACTGAGACTTTGGAAGTGGCCTT
GCCAGCGCTGTCTGTCTTTCTGGCCACAGATGAGGGCTCCTGATTGTGGAAGGCCACGGAAGGGACCTGAACA
CGATGGCAGCAGACAAAGTTATCTCCTGTGACTGCTCCTCTCCAGCAACCCTCAGCTCAGGCTAGACTTTCCCCCT
GTGTTGAGAATGCCCTGCCCTGTGTGGAAGCCTGATGCATTTAGTGACAGTGTTAGCTTTGTTAGTTTCTAGT
CTGGCCAGCAGGCTTTCCATGTGATCTGCCATTGGCTTGCTTCAGTGGCCAGTGGAGCCAGGGGTGTCCACCAGA
GTCTTGGACACAGACTTCTGAGGTGGCAGCGGGAGGGAGCCTGCTCCCTGCCACACACGTACAATTTCTAATCCA
TACAGGCCTATGTAGTATATACACATACGCAGAGCCTTAGGAATTGTGAAAGGCCAATCAAACTTGGGGCCC
TAATTTCACTCTGCC

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FIGURE 4631

MVTHAAGARTFCEEQKKGSTYSVPKSKEKLMKHSQEARQADRESEKPVDSLHPGAGTAKHPPFAASLEEKPDVK
QKSSRKKVVVPQIIITRASNETLVSCSSSGSDQRTIREPEDWGPYRRHRNPSTADAYNSHLKE

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FIGURE 4632

AGCGACTCACAAAGGTCCTCGCGCCAGCGGCGTGCGTCACCATGGCGACCGCGCGCCGCGCAGCCGCGCCCCGC
CCCTCTGGCGGGACCGGCCACCATCCTCTCGCGAGAGCATCCCGTGCGACCGGAAGTGGGGCGGCGACCCCGGAA
GTCCCCGCGGGTGAGCTTGGTCGGTTCGATCGCCGCCGGGACCTGACACCGCCCGGAGTTGGCGTCCCTTCTC
CCTCTCCGAGTGCTGCTCCTGTCAATTGTGGCCATGGACGTTACGGCGAAGCAGCTGGAGAAGCTGGCCAAGAAG
GCGGAGAAGGACTCCAAGGCGGAGCAGGCCAAAGTGAAGAAGGCCCTTCTGCAGAAAAATGTAGAGTGTGCCCGT
GTGTATGCCGAGAACGCCATCCGCAAGAAGAACGAAGGTGTGAAGTGGCTTCGGATGGCGTCCCGCGTAGACGCA
GTGGCCTCCAAGGTGCAGACAGCTGTGACTATGAAGGGGTGACCAAGAATATGGCCAGGTGACCAAGGCCCTG
GACAAGGCCCTGAGCACCATGGACCTGCAGAAGGTCTCCTCAGTGATGGACAGGTTTCGAGCAGCAGGTGCAGAAC
CTGGACGTCCATACATCGGTGATGGAGGACTCCATGAGCTCGGCCACCACCCTGACCACGCCGAGGAGCAGGTG
GACAGCCTCATTCAGATCGCCGAGGAGAATGGCCTGGAGGTGCTGGACCAGCTCAGCCAGCTGCCCGAGGGC
GCCTCTGCCGTGGGCGAGAGCTCTGTGCGCAGCCAGGAGGACCAGCTGTACGGAGGTTGGCCGCCTTGAGGAAC
TAGCCGTGCCCGCCGGTGTGCACCGCCTCTGCCCCGTGATGTGCTGGAAGGCTCCTGTCTCTCCCCACCGCGT
CTTGCCTTTGTGTGACCCCGCGGGCTGCGGCCGAGCCACTCTGCGTCTCTCACCTGCCAGGCCTGCGTGGC
CTTAGGGTTGTTCCTGTTCTTTAGGTTGGGCGGTGGGTCTGTGTCTCTGGTGTGAGTTTCTGCAATTTCTGGG
GGTGATTTCTGTGACTCTGGGCCCACAGCGGGGAGGCCAAGAGGGGCCCTGTGGACTTTACCCAGCACTGTGGG
GGCCTTCAGACTCTGGGGCAGCAGACATGCTGCTTCCCATCAGCCAGAGGGGGTCAAGGGCTGCCCTGTTGCCAAA
CAACTCCCTGAGGCCTCTCCGCACCACCTCAGCGGGCAGGAGGTCCCACCATGTGGACAGACATAGCCCAAGGAG
GCACCACAGGTCTATGTGTGCTGGGGGATGTCAAGTGCCACCCAACGCTGTCTGGTGGTATTTACAATGACATC
CTCCTCCTCCATCACTCCAGGGGTGGTGTCTCGGCCGCCCTACCAGCTGGCTGAGCCCCCTGGCCTCCTGCGCT
CCCTCACTTCCCTCAGTTCCCAAAGCTGCCCAGTCCATGGGGACAGAACCGTCACTCAGATCCACATTCAAGTGT
GCCACCCCTGCAGTCTTCATCCTCACTCAGCTGCTGCCTCTGGAGGTGCCCTTGGCCACATGTGCTGTGCTGTTT
GTCTCCTCGACAGGGAGCCTGTCCACCAGCAGGCTGCGGTCCCAGCGGTGCGTCTGCAGCTCCTCCCCCTGGGC
AGCCTGGTTCTCCCGGAGGACCTTTCCCTTGGGGCCCTGCTTCATGACGATGCTGCCTGTGTACCCCTTACCATC
TGTAACAACACTGGGTGCCTTCCCCGACCACACCCCAATGCCTTCCAGCTTGGAAGCCAAGGCAGCTGATGAAGG
GAGCTCAGGAGAGCCGTCTTCAGCTGGGCTGGGGTTGGGGCTGCTGTGAGGAAAACCTGCCATTGTGGCCCTGGA
GAGTACCAGCAGCTCTTGGAAGGACTTGCTGGGAGGCTGAGAGAGGCTTTGGGCACAGCCTGTCTTTTCC
ATTTCTAAAGTTTACTTCATTGTCTTGAGGCTTCCAGGTTTTGTTTTGTTTTTGCCAAAGTAGAAAAGGCAGG
TGGTGGGCGGCTGGCAGGGAGTGCGGGTCCCCGCCCTCTTCAGTCTGCCCTCCCCCTCCTCAGTCTGCCCACC
CCGTGCAGCCCATGCTGAGGCTGCAGTGGTGTCTGTTGGGTGTACGTGCAGGAACGTGGAGACCTGACGTGGGCT
CACTGCGTTTGGTTTTCTTTTCAGAACTTGGGAGCCCCAGGGAGGGGCTAGTGTGGTAGGTCTTAGACGTGGA
TCCCTCCAGCCTCCCCAAAATCAACCCTGGTGTGAGAGAACGTCCTTCTGTCCATCGTGGGTAACAGCCTTGGG
GAGGGTGCAGAGCTCTGCAGAGCCATGGGCCAGGTGGGGCTGCCCTCAGTCTGTCCCTTGGGCACTGAGGAGAG
GGGCCCATTACCTTTCTCCTAGAATGCTGTTGTAAATAAACAAATGGATCCCTGG

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FIGURE 4633

CTTTCGCTCGGCTGTTTTCTGCGCAGGAGCCGCGAGGGCCGTAGGCAGCCATGGCGCCCAGCCGGAATGGCATG
GTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGCCCCGTAAAGATC
CGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCCGGTCCCATCCGGCCCCATC
GTGCGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAGCCTGGAGGAGCTCAGGGTG
GCCGGCATTACACAAGAAGGTGGCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAG
TCCCTGCAGGCCAACGTGCAGCGGCTGAAGGAGTACCGCTCCAACTCATCCTCTTCCCCAGGAAGCCCCTCGGCC
CCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAACTGGCCACCCAGCTGACCGGACCGGTTCATGCCCCGTCCGG
AACGTCTATAAGAAGGAGAAAGCTCGAGTCATCACTGAGGAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGT
ATGCCCCGTGCCAACGCCCCGGCTCTTCGGCATAACGGGCAAAAAGAGCCAAGGAAGCCGCGAGAACAGGATGTTGAA
AAGAAAAAATAAGCCCTCCTGGGGACTTGGAATCAGTCGCGCAGTCATGCTGGGTCTCCACGTGGTGTGTTTCGT
GGGAACAACCTGGGCCTGGGATGGGGCTTCACTGCTGTGACTTCCTCCTGCCAGGGGATTTGGGGCTTTCTTGAAA
GACAGTCCAAGCCCTGGATAATGCTTTACTTTCTGTGTTGAAGCACTGTTGGTTGTTTGGTTAGTGAAGTGA
AAACGGTTTTCTTGTGGGGAGGTTACAGAGGCTGACTTCAGAGTGGACTTGTGTTTTTCTTTTTAAAGAGGCAA
GGTTGGGCTGGTGCTCACAGCTGTAATCCCAGCACTTTGAGGTTGGCTGGGAGTTCAAGACCAGCCTGGCCAACA
TGTCAGAACTACTAAAAATAAAGAAATCAGCCATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4634

MAPSRNGMVLKPHFHKDWQRRVATWFNQPARKIRRRKARQAKARRIAPRPASGP I R P I V R C P T V R Y H T K V R A G R G
F S L E E L R V A G I H K K V A R T I G I S V D P R R R N K S T E S L Q A N V Q R L K E Y R S K L I L F P R K P S A P K K G D S S A E E L K L A T Q L
T G P V M P V R N V Y K K E K A R V I T E E E K N F K A F A S L R M A R A N A R L F G I R A K R A K E A A E Q D V E K K K

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FIGURE 4635

CTGGGTCTTGGCCTTTGGGCATCATCCAGCGCCATCGGCCTGGCGCTTCAGCCAACGCGGGAGTGGATGGGCCCC
TTCTTCTTCGCAGACAGCGTTTCGGCCGCTGCCCGGGCTCTAGGCGCGGGCCGGACGGCCCCAGTCTGGAGGGTTTCGG
GGCGGAGGCCCGGGGGGTGCGCGCGCCCGGGGTCCGGCCTCTCACTCGCTCCCCCTCTCGTCCGCAGCCGCAGGG
CCGTAGGCAGCCATCGCGCCAGCCGGAATGGCATGGTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGC
GTGGCCACGTGGTTCAACCAGCCGGCCCGTAAGATCCGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATC
GCCCCGCGCCCCGCGTTCGGGTCCCATCCGGCCCATCGTGCGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGC
GCCGGCCGCGGCTTCAGCCTGGAGGAGCTCAGGGTGGCCGGCATTCAACAAGAAGGTGGCCCCGGACCATCGGCATT
TCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAGTCCCTGCAGGCCAACGTGCAGCGGCTGAAGGAGTACCGC
TCCAACTCATCCTCTTCCCCAGGAAGCCCTCGGCCCCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAAACTG
GCCACCCAGCTGACCGGACCGGTCATGCCCGTCCGGAACGTCTATAAGAAGGAGAAAGCTCGAGTCATCACTGAG
GAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGTATGGCCCGTGCCAACGCCCCGGCTCTTCGGCATAACGGGCA
AAAAGAGCCAAGGAAGCCGAGAACAGGATGTTGAAAAGAAAAAATAAGCCCTCCTGGGGACTTGGAATCAGTC
GGCAGTCATGCTGGGTCTCCACGTGGTGTGTTTCGTGGGAACAACCTGGGCCTGGGATGGGGCTTCACTGCTGTGA
CTTCTCCTGCCAGGGGATTTGGGGCTTTCTTGAAAGACAGTCCAAGCCCTGGATAATGCTTTACTTTCTGTGTT
GAAGCACTGTTGGTTGTTTGGTTAGTGACTGATGTAAACGGTTTTCTTGTGGGGAGGTTACAGAGGCTGACTTC
AGAGTGGACTTGTGTTTTTTCTTTTAAAGAGGCAAGGTTGGGCTGGTGCTCACAGCTGTAATCCCAGCACTTTG
AGGTTGGCTGGGAGTTCAAGACCAGCCTGGCCAACATGTCAGAACTACTAAAAATAAAGAAATCAGCCATGAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 4636

MAPSRNGMVLKPHFHKDWQRRVATWFNQPARKIRRRKARQAKARRIAPRPASGPPIRPIVRCPTVRYHTKVRAGRG
FSLEELRVAGIHKKVARTIGISVDPRRRNKSTESLQANVQRLKEYRSKLILFPRKPSAPKKGDSSAEELKLATQL
TGPVMPVRNVYKKEKARVITEEKNFKAFASLRMARANARLFGIRAKRAKEAAEQDVEKKK

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FIGURE 4637

TAGTTTTATCTCTATACCCAAAATGGAGGTTAAAAGTTACACTAAAAATAACACGATTGCACCAAAGAAAAGCGTC
CCATCGTATCCTGTCTAGACACGTCGGACGAGGAGGACGCGAGTGTACCCGTGGGGACAGGAGAGAAGCTGAGACT
CTCGGCACATACGATATTGCCTGGTAGTAAGACACGAGAGCCTTCTAATGCCAAGCAGCAGAGAAGGAAAAAATAA
AGTGAAGAAAGAAAGCGAAAGAAAGAAACAAAAGGCAGAGAGGTTTCGCTTCGGAAAGCGGAGCGACAAGTTCTGTCTC
CTCGGAGTCGGAGAGCGAGTCTCTAGAGAGTGGGGAGGATGACAGGGACTCTCTGGGGAGCTCTGGCTGCCTCAA
GGGGTCCCCGCTGGTGTCTGAAGGACCCCTCCCTGTTTCAGCTCCCTCTCTGCCTCCTCCACCTCGTCTCACGGGAG
CTCTGCCGCCCAGAAGCAGAACCCAGCCACACAGACCAGCACACCAAGCACTGGCGGACAGACAATTGGAAGAAC
CATTTCTTCCCCGGCTTGGTCAGAGGTCAGTTCTTTATCAGACTCCACAAGGACGAGACTGACAAGCGAGTCTGA
CTACTCCTCTGAGGGCTCCAGTGTGGAATCGCTGAAGCCAGTGAGGAAGAGGCAGGAGCACAGGAAGCGAGCCTC
CCTGTCTGGAGAAGAAGAGCCCTTCTGTCTCAGCGCGGAGGGCGCTGTCCCCAACTGGACAAGGAGGGGAAAGT
TGTCAAAAACATAAAACAAAACACAAAACAAAACAAAGGAGAAGGGACAGTGTTCATCAGCCAAGAGCTGAA
GTTGAAAAGTTTTACTTACGAATATGAGGACTCCAAGCAGAAGTCAGATAAGGCTATACTGTTAGAGAATGATCT
TTCCACTGAAAACAAGCTAAAAGTGTTAAAGCACGATCGCGACCCTTTAAAAAGAAAGAGAACTTAGCAAAAT
GAAATTAGAAGAAAAAGAAATGGCTCTTTAAAGATGAAAAATCACTGAAGAGAATCAAAGACACAAACAAAGACAT
CAGCAGGTCTTTCCGAGAAGAGAAAAGACCGTTCGAATAAAGCAGAAAAAGGAGAGATCGCTGAAGGAAAAGTCTCC
GAAAGAAGAAAACTGAGACTGTACAAAGAGGAGAGAAAAGAAATCAAAGACCGGCCCTCAAAATTAGAGAA
GAAGAATGATTTAAAGAGGACAAAATTTCAAAGAGAGAAGGAGAAGATTTTAAAGAAGATAAAGAAAACTCAA
AAAAGAAAAGTTTTATAGGGAAGATTCTGCTTTTGACGAATATTGTAACAAAAATCAGTTTCTGGAGAATGAAGA
CACCAAATTTAGCCTTTCTGACGATCAGCGAGATCGGTGGTTTTCTGACTTGTCCGATTATCCTTTGATTTCAA
AGGGGAGGACAGCTGGGACTCGCCAGTGACAGACTACAGGGACATGAAGAGCGACTCTGTGGCCAAGCTCATCTT
GGAGACGGTGAAGGAGGACAGCAAGGAGAGGAGGCGGGACAGCCGGGCCCCGGGAGAAGCGAGACTACAGAGAGCC
CTTCTTCCGAAAGAAGGACAGGGACTATTTGGATAAAAACCTCTGAGAAGAGGAAAGAGCAGACTGAAAAGCATAA
AAGTGTCCCTGGCTACCTTTTCGGAAAAGGACAGAAGAGGAGAGAGTCCGCAGAGGCCGGGCGGGACAGAAAGGA
CGCCCTGGAGAGCTGCAAGGAGCGCAGGGACGGCAGGGCCAAGCCCCGAGGAGGCGCACCGGGAGGAGCTGAAGGA
GTGTGGCTGCGAGAGTGGCTTCAAGGACAAGTCCGACGGCGACTTTGGGAAGGGCCTGGAGCCGTGGGAACGGCA
CCACCCAGCAGCAGAGAAGGAGAAGAGGATGGCCCCGATAAGGAAAGGAAGGAGAAGACAAAACAGAAAGATA
CAAAGAGAAATCCAGTGACAAGGACAAAAGTGAGAAAATCAATCCTGGAAAAATGTGAGAAGGACAAAGAATTTGA
TAAATGTTTTAAAGAGAAAAAAGATACCAAGGAAAAACATAAAGACACACATGGCAAAGACAAAGAAAGGAAAGC
GTCTCTCGACCAAGGGAAAGAGAAGAAGGAGAAGGCTTTCCCTGGGATCATCTCAGAAGACTTCTCTGAAAAAAA
AGATGACAAGAAAGGCAAAGAGAAAAAGCTGGTACATCGCAGACATCTTCACAGATGAGAGTGAGGACGACAGAGA
CAGCTGCATGGGGAGCGGGTTCAAGATGGGAGAGGCCAGCGACTTGCCGAGGACGGACGGCCTCCAGGAGAAGGA
GGAAGGACGGGAGGCCTATGCCTCCGACAGACACAGGAAGTCTTCTGACAAGCAGCACCTTGAGAGGCAGAAGGA
CAAGGAGCCCAGAGACAGGAGAAAGGACCGAGGGGCTGCCGACGCGGGGAGAGACAAAAAGAGAAAGTCTTTGA
AAAGCACAAGGAGAAGAAGGATAAAGAGTCCACAGAAAAGTACAAGGACAGGAAGGACAGAGCCTCAGTGGACTC
CACGCAAGATAAGAAAAATAAACAGAAGCTCCCCGAGAAGGCTGAAAAGAAGCACGCTGCCGAAGACAAGGCTAA
AAGCAAACACAAAGAGAAGTCGGACAAAGAACATTCCAAGGAGAGGAAGTCTCGAGAAGTGCCGACGCGGAAAA
AAGCCTGCTTGAAAAGTTGGAAGAAGAGGCTCTCCATGAGTACAGAGAAGACTCCAACGATAAAATCAGCGAGGT
CTCCTCTGACAGCTTCACGGACCGAGGGCAGGAGCCGGGGCTGACTGCCTTCTTGAGGTTCTTTTACGGAGGCC
ACCTGGAGACGACAAGCCGAGGGAGAGCGCCTGCCTCCCTGAGAAGCTGAAAGAGAAGGAGAGGCACAGACACTC
CTCATCTTCATCCAAGAAGAGCCACGACCGAGAGCGAGCCAAGAAAGAGAAGGCCGAGAAGAAAGAGAAGGGCGA
AGATTACAAGGAGGGCGGTAGCAGGAAGGACTCCGGCCAGTACGAAAAGGACTTCTTGAGGCGGATGCTTACGG
AGTTTCTTACAACATGAAAGCTGACATAGAAGATGAGCTAGATAAAACCATTGAATTGTTTTCTACCGAAAAGAA
AGATAAAATGATTCCGAGAGAGAACCTTCCAAG

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FIGURE 4638

ACTTGCCTGTCTACTCAGCCTGGACGCGCTTCTTCGGGTTCGCGGGTGCCTCCGGCCCCGGCTCCCGCCTCGGCCC
CGATGGACGCCGCGTTCTCTCTCGTCTCTCGGGCTGTTGGCCCAGAGCCTCTGCCTGTCTTTGGGGGTTCTTGAT
GGAGGAGGCCCCACCACCTGTACCCCTGGCGCCGGGCGCCTGCCCTGAGCCGCGTGCAGGAGGGCTGGGTCTATCC
CCCCGATCAGCGTATCCGAGAACCACAAGCGTCTCCCTACCCCTGGTTCAGATCAAGTCGGACAAGCAGCAGC
TGGGCAGCGTCTATCTACAGCATCCAGGGACCCGGCGTGGATGAGGAGCCCCGGGGCGTCTTCTCTATCGACAAGT
TCACAGGGAAGGTCTTCTCAATGCCATGCTGGACCGCGAGAAGACTGATCGCTTCAGGCTAAGAGCGTTTGCCC
TGGACCTGGGAGGATCCACCCTGGAGGACCCACGGACCTGGAGATTGTAGTTGTGGATCAGAATGACAACCGGC
CAGCCTTCTTGCAGGAGGCGTTCACTGGCCGCGTGTGGAGGGTGCAGTCCCAGGCACCTATGTGACCAGGGCAG
AGGCCACAGATGCCGACGACCCGAGACGGACAACGCAGCGCTGCGGTTCTCCATCTGACGAGGGCAGCCCCG
AGCTCTTCAGCATCGACGAGCTCACAGGAGAGATCCGCACAGTGCAGTGGGGCTGGACCGCGAGGTGGTCGCGG
TGTACAATCTGACCTGCAGGTGGCGGACATGTCTGGAGACGGCTCACAGCCACTGCCTCAGCCATCATACCC
TTGATGACATCAATGACAATGCCCCGAGTTCACCAGGGATGAGTTCTTCATGGAGGCCATAGAGGCCGTCAGCG
GAGTGGATGTGGGACGCTTGAAGTGGAGGACAGGGACCTGCCAGGCTCCCCAACTGGGTGGCCAGGTTACCA
TCCTGGAAGGCGACCCGATGGGCGAGTTCACCATCCGCACGGACCCCAAGACCAACGAGGGTGTCTGTCCATTG
TGAAGGCCCTGGACTATGAGAGCTGTGAACACTACGAACTCAAAGTGTGCGTGCAGAATGAGGCCCCGCTGCAGG
CGGCTGCCCTTAGGGCTGAGCGGGGCCAGGCCAAGGTCCGCGTGCATGTGCAGGACACCAACGAGCCCCCGTGT
TCCAGGAGAACCACCTTCGGACCAGCTAGCAGAGGGGGCAGCCCCAGGCACTCTGGTGGCCACCTTCTCTGCC
GGGACCTGACACAGAGCAGCTGCAGAGGCTCAGTACTCCAAGGACTACGACCCGGAAGACTGGCTGCAAGTGG
ACGCAGCCACTGGCCGGATCCAGACCCAGCAGTGTCTCAGCCCGGCGTCCCCCTTCTCAAGGGCGGCTGGTACA
GAGCCATCGTCTGGCCAGGATGACGCTTCCAGCCCCGACCGCCACCGGCACCCCTGTCCATCGAGATCCTGG
AGGTGAACGACCATGCACCTGTGCTGGCCCCGCCGCGCGGCGAGCCTGTGCAGCGAGCCACCAAGGCCAG
GCCTCTCTGGGCGCCACGGATGAGGACCTGCCCCCCCCACGGGGCCCCCTTCCACTTCCAGCTGAGCCCCAGGC
TCCCAGAGCTCGGCCGGAAGTGGAGCCTCAGCCAGGTCAACGTGAGCCACGCGCGCCTGCGGCCGCGACACCAGG
TCCCCGAAGGCCGTGACCGCCTCAGCCTGCTGCTCCGGGACTCGGGGCAGCCGCCCCAGCAGCGAGCAGCCTC
TGAACGTGACCGTGTGCCGCTGCGGCAAGGACGGCGTCTGCCTGCCGGGGGCCGACGCTGTGGCGGGGGCA
CAGGCCTCAGCCTGGGCGCACTGGTCTATCGTGTGGCCAGCGCCCTCCTGCTGCTGGTGTGGTCTGCTGCTGG
CACTCCGGGCGCGGTTCTGGAAGCAGTCTCGGGGCAAGGGGCTGCTGCACGGCCCCAGGACGACCTTCGAGACA
ATGTCCTCAACTACGATGAGCAAGGAGGCGGGGAGGAGGACCAGGACGCCTACGACATCAGCCAGCTGCGTCACC
CGACAGCGCTGAGCCTGCCTCTGGGACCGCGCCACTTCGAGAGATGCCCCGAGGGCCGCTGCACCCCCAGC
CACCCGAGTGTGCCCCACGACCCCTGGACATCGCCGACTTCATCAATGATGGCTTGGAGGCTGCAGATAGTG
ACCCAGTGTGCCGCTTACGACACAGCCCTCATCTATGACTACGAGGGTGACGGCTCGGTGGCGGGGACGCTGA
GCTCCATCCTGTCCAGCCAGGGCGATGAGGACCAGGACTACGACTACCTCAGAGACTGGGGGCCCCGCTTCGCC
GGCTGGCAGACATGTATGGGCACCCGTGCGGGTTGGAGTACGGGGCCAGATGGGACCACCAGGCCAGGGAGGGTC
TTTCTCTGGGGCACTGCTACCCAGACACAGAGGCCGGACAGCCTGACCCCTGGGGCGCAACTGGACATGCCACTC
CCCGGCCCTCGTGGCAGTGTAGGCCCTGCAGAGGCAGCCTGAGGTACCGGGCCCCGACCCCCCTGGGCCCTGGGGC
AGCCTCCTTCTGTAGGCGAGGGCCCAAGTCTGGGGGCAGAACCTGAGTGTGGATGGGGCGGCCAGGAAGAGGCC
CCTTCTGCGGGGGTGGGAAGAGTTTCTCTCCATCGGCCCCATGCGGGTCACCTCCCTAGTCCCACCTTTGCCTC
CTACCAGTGAACCTCATCTTTGTATGAAAGACAGCAACCTCCTGGGTAAATCTGAATGAAAAACGTGCTAGTCTC
TTTCATGCAAAAAAAAAAAAAAAAAA

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FIGURE 4639

MDAAFLVLGLLAQSLCLSLGVPGWRRPTTLYPWRRAPALSRVRRRAWVIPPISVSENHKRLPYPLVQIKSDKQQL
GSVIYSIQGPGVDEEPRGVFSIDKFTGKVFLNAMLDREKTDREFLRAFALDLGGSTLEDPTDLEIVVVDQNDNRP
AFLQEFTGRVLEGAVPGTYVTRAEATDADDPETDNAALRFSILQQGSPELFSIDELTGEIRTVQVGLDREVVAV
YNLTQVADMSGDGLTATASAIITLDDINDNAPEFTRDEFFMEAIEAVSGVDVGRLEVEDRDLPGSPNWVARFTI
LEGDPDGQFTIRTDPKTNEGVLISIVKALDYSCHEHYELKVSQNEAPLQAAALRAERGQAKVRVHVQDTNEPPVF
QENPLRTSLAEGAPPGTLVATFSARDPDTEQLQRLSYSKYDPEDWLQVDAATGRIQTQHVLSPASPFLLKGGWYR
AIVLAQDDASQPRATATGTLSEILEVNDHAPVLAPPPGSLCSEPHQGPGLLLGATDEDLPFHGAPFHFQLSPRL
PELGRNWSLSQVNVSHARLRPRHQVPEGLHRLSLLLRDSGQPPQPREQPLNVTVCRCGKDGVCCLPGAAALLAGGT
GLSLGALVIVLASALLLVLLVALRARFWKQSRGKGLHGPQDDLRDNVLYDEQGGGEEDQDAYDISQLRHP
TALSPLGPPPLRRDAPQGRLHPQPPRVLPTSPLDIADFINDGLEAADSDPSVPPYDTALIYDYEGDGSVAGTLS
SILSSQGEDQDYDLRDWGPREFARLADMYGHPCGLEYGARWDHQAREGLSPGALLPRHRGRTA

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FIGURE 4640

AGTTCTGTGGAGCAGCGGTGGCCGGCTAGGATGGGCTGTCTCTGGGGTCTGGCTCTGCCCCTTTTCTTCTTCTGC
TGGGAGGTTGGGGTCTCTGGGAGCTCTGCAGGCCCCAGCACCCGCAGAGCAGACACTGCGATGACAACGGACGAC
ACAGAAGTGCCCGCTATGACTCTAGCACCGGGCCACGCCGCTCTGGAAACTCAAACGCTGAGCGCTGAGACCTCT
TCTAGGGCCTCAACCCAGCCGGCCCCATTCCAGAAGCAGAGACCAGGGGAGCCAAGAGAATTTCCCCTGCAAGA
GAGACCAGGAGTTTCAAAAAACATCTCCCAACTTCATGGTGCTGATCGCCACCTCCGTGGAGACATCAGCCGCC
AGTGGCAGCCCCGAGGGAGCTGGAATGACCACAGTTCAGACCATCACAGGCAGTGATCCCGAGGAAGCCATCTTT
GACACCCCTTTCACCGATGACAGCTCTGAAGAGGCAAAGACACTCACAATGGACATATTGACATTGGCTCACACC
TCCACAGAAGCTAAGGGCCTGTCTCAGAGAGCAGTGCCCTCTTCCGACGGCCCCCATCCAGTCATCACCCCGTCA
CGGGCCTCAGAGAGCAGCGCCTCTTCCGACGGCCCCCATCCAGTCATCACCCCGTCACGGGGCCTCAGAGAGCAGC
GCCTCTTCCGACGGCCCCCATCCAGTCATCACCCCGTCATGGTCCCCGGGATCTGATGTCACTCTCTCTCGCTGAA
GCCCTGGTGACTGTCAAAACATCGAGGTTATTAATTGCAGCATCACAGAAATAGAAAACAACAACTTCCAGCATC
CCTGGGGCCTCAGACATAGATCTCATCCCCACGGAAGGGGTGAAGGCCTCGTCCACCTCCGATCCACCAGCTCTG
CTGACTCCACTGAAGCAAACACACATCACTGAGGTCACAGCCTCTGCCGAGACCCTGTCTCAGCCCTCTCT
GTTGAGACACCAAGTTACGTCAAAGTCTCAGGAGCAGCTCCGGTCTCCATAGAGGCTGGGTCAGCAGTGGGCAA
ACAACTTCCCTTGTGGGAGCTCTGCTTCTCTACAGCCCCCTCGGAAGCCGCCCTCAAGAACTTCAACCCCTTCA
GAGACACCGACCATGGACATCGCAACCAAGGGGCCCTTCCCCACCAGCAGGGACCCTCTTCTTCTGTCCCTCCG
ACTACAACCAACAGCAGCCGAGGGACGAACAGCACCTTAGCCAAGATCACAACTCAGCGAAGACCACGATGAAG
CCCCAACAGCCACGCCACGACTGCCCGGATCGAGGCCGACCACAGACGTGAGTGCAGGTGAAAATGGAGGTTT
CCTCCTCCTGCGGCTGAGTGTGGCTTCCCCGGAAGACCTCACTGACCCCAGAGTGGCAGAAAGGCTGATGCAGCA
GCTCCACCGGGAACCTCCACGCCACGCGCCTCACTTCCAGGTCTCCTTACTGCGTGTGAGGAGAGGCTAACGGAC
ATCAGCTGCAGCCAGGCATGTCCCGTATGCCAAAAGAGGGTGCTGCCCCTAGCCTGGGCCCCCACCAGAGACTG
CAGCTGCGTTACTGTGCTGAGAGGTACCCAGAAGGTTCCCATGAAGGGCAGCATGTCCAAGCCCCTAACCCAGA
TGTGGCAACAGGACCCTCGCTCACATCCACCGAGTGTATGTATGGGGAGGGGCTTACCTGTTCCCAGAGGTGT
CCTTGGACTCACCTTGGCACATGTTCTGTGTTTTAGTAAAGAGAGACCTGATCACCCATCTGTGTGCTTCCATCC
TGCATTAAAAATTCAGTGTGGCCAG

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[illegible]

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FIGURE 4642

GCGGAGCGAGAGGCTGAGAGAGTCGGAGACACTATCCGCTTCCATCCGTCGCGCAGACCCTGCCGGAGCCGCTGC
CGCT**ATG**GATGATCGAGAGGATCTGGTGTACCAGGCCAAGCTGGCCGAGCAGGCTGAGCGATACGACGAAATGGT
GGAGTCAATGAAGAAAGTAGCAGGGATGGATGTGGAGCTGACAGTTGAAGAAAGAAACCTCCTATCTGTTGCATA
TAAGAAATGTGATTGGAGCTAGAAGAGCCTCCTGGAGAATAATCAGCAGCATTGAACAGAAAGAAACAAAGGG
AGGAGAAGACAAGCTAAAAATGATTGGGAATATCGGCAAATGGTTGAGACTGAGCTAAAGTTAATCTGTTGTGA
CATTCTGGATGTACTGGACAAACACCTCATTCCAGCAGCTAACACTGGCGAGTCCAAGGTTTTCTATTATAAAAT
GAAAGGGGACTACCACAGGTATCTGGCAGAATTTGCCACAGGAAACGACAGGAAGGAGGCTGCGGAGAACAGCCT
AGTGGCTTATAAAGCTGCTAGTGATATTGCAATGACAGAACTTCCACCAACGCATCCTATTTCGCTTAGGTCTTGC
TCTCAATTTTTCCGTATTCTACTACGAAATCTTAATCCCCCTGACCGTGCTGCAGGTTGGCAAAAGCAGCTTT
TGATGATGCAATTGCAGAACTGGATACGCTGAGTGAAGAAAGCTATAAGGACTCTACACTTATCATGCAGTTGTT
ACGTGATAATCTGACACTATGGACTTCAGACATGCAGGGTGACGGTGAAGAGCAGAATAAAGAAGCGCTGCAGGA
CGTGGAAGACGAAATCAG**TG**AGACATAAGCCAACAAGAGAAACCATCTCTGACCACCCCTCCTCCCCATCCCA
CCCTTTGGAAACTCCCCATTGTCACTGAGAACCACCAAACTGACTTTTACATTTGGTCTCAGAATTTAGGTTCC
TGCCCTGTTGGTTTTTTTTTTTTTTTTTTTTTAAACAGTTTTCAAAAGTTCTTAAAGGCAAGAGTGAATTTCTGTG
GATTTTACTGGTCCCAGCTTTTAGGTTCTTTAAGACACTAACAGGACTACATAGAGGCTTTTTTCAGCATTACTGT
GTCGTCTCCGTGCCAGATGTGGCAAGATCACCATTAGCAAAATGGAAATTACATTTGAAAGCCATTAGACTTATAG
GTGATGCAAGCATCTAAGAGAGAGGTTAATCACACTATAGAGGCATAAGTGGTATCAGTTTTCAATTTTCTAATT
GTTTAAACTGTGTTTTTATACCAAGTGTGCAAGTAATTGGGTGTTAGCTTGAGATGGTTAAAGGTGGTTTGGGGA
GGGACTTCGTTGTAATGGTTTTTGCTGTAAAAATGTTTCCAACCTCCGCTGAAATGTTGCTGAAAAGCATGGTGCT
GGTAACAGTTCAACAATCCGTGGCTGCTCATTCTTGCTTACTTTACTCTCCCACTGAAGCAGGTTAGCGTTGAAG
GTGGTATGAAAAGCCTGCATGCCTGTTCAATTCTTTGTTTCTTCTCCTTCCCCCTCCCCCTACCTCCTTCCCC
TCACTCCTCCCCCCTTCGCTCGCTCAACCTCTTTGTTTCAGTATGTGTAACCTGAAGCTAATTTGTACTACTGG
ATATCTGACTGGAGCCACAGATACAGAATCTGTATTGTTCTTACTGAAACACAGCATGGAATTAACATTAAACTT
AAATAAAACAAACCTAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4643

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGG
EDKCLKMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMGDYHRYLAEFATGNDRKEAAENSLV
AYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLR
DNLTLWTSDMQGDGEEQNKEALQDVEDENQ

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FIGURE 4644A

CTCGCCCCCTCCGCGCTCGCAACTTCGGCCTCCCCCGGCTCCCGCCCCGCTCTCCCTCCTTTGTTGCGCGATGAGGG
TCGGGTTTTCGGATCTGACCGAGCCGCCGCCGCGGGATGGAGCCGCTCAGCCACCGGGCCCTGCCGCGCTGTCT
GGATCGACACCCTCTACAGCAACTTCAGCTACGGGACGGACGAGTACGACGGAGAGGGGAATGAGGAGCAGAAGG
GGCCCCCGGAGGGCTCAGAGACCATGCCGTACATCGATGAGTCGCCCACCATGTCCCCGCGAGCTCAGCGCCCGCA
GCCAGGGCGGGGGGATGGCGTCTCCCCGACTCCACCTGAGGGACTGGCTCCTGGGGTGGAAGCAGGGAAAGGCC
TGGAGATGAGGAAGCTGGTTCTCTCGGGGTTCTTGCCAGCGAAGAGATCTACATTAACCAGCTGGAAGCCCTGT
TGCTGCCCATGAAACCCCTGAAGGCCACCGCCACCACCTCCCAGCCCGTGCTCACCATCCAGCAGATCGAGACCA
TCTTCTACAAGATCCAGGACATCTATGAGATCCACAAGGAGTTCTATGACAACCTGTGCCCAAGGTGCAACAGT
GGGACAGCCAGGTACCATGGGCCACCTCTTCCAGAAGCTGGCCAGCCAGCTCGGTGTGTACAAAGCGTTTGTCTG
ATAACTATAAAGTCGCTCTGGAGACAGCTGAGAAGTGACGCCAGTCCAACAACAGTTCCAGAAGATCTCAGAGG
AACTCAAAGTGAAAGGTCCCAAGGACTCCAAGGACAGCCACACGTCTGTCAACATGGAAGCTCTGCTCTACAAGC
CCATTGACCGGGTCACTCGGAGCACCCCTAGTCTACACGACCTGTGTAAGCACACACCTGTGGACCACCCCGACT
ACCGCTGTCTGAGGATGCCCTCCGCATCTCCAGAACTTCTGTCCAGCATCAACGAGGACATCGACCCCGGCC
GGACTGCGAGTGACAACGCCCAAGGGGAGACGCGACAGCTGGTGAAGGACGGCTTCTTGGTGGAAGTGTCTAGAGG
CCTCCCGAAGCTGCGGCACGTCTTCTCTTTACAGATGTCTACTGTGTGCCAAGCTGAAGAAGACCTCTGCAG
GGAAGCACAGCAGTATGACTGTAAGTGGTACATCCCCCTGGCCGACCTGGTGTTCATCCCCGAGGAATCTG
AGGCCAGCCCCAGGTGCACCCCTTCCCAGACCATGAGCTGGAGGACATGAAGATGAAGATCTCTGCCCTCAAGA
GTGAAATCCAGAAGGAGAAAGCCAAACAAGGCCAGAGCCGGGCCATCGAGCGCCTGAAGAAGAAGATGTTTGAGA
ATGAGTTCCTGTCTGCTCAACTCCCCCACAATCCCGTTTCAAGGATCCACAATCGGAATGGAAGAGTTACCTGT
TCTACTGTCTCGGACTACGAGAGGTGAGAGTGGAGAGAAGCAATTCAGAAACTACAGAAGAAGGATCTCCAGG
CCTTTGTCTGAGCTCAGTGGAGCTCCAGGTGCTCACAGGATCCTGTTTCAAGCTTAGGACTGTACACAACATTC
CTGTCAACAGCAATAAAGACGACGATGAGTCTCCAGGACTCTATGGCTTCTTTCATGTATCGTCCACTCTGCCA
AGGGATTTAAGCAATCAGCCAACCTGTACTGTACTGTAACCTGGAGGTGGATTCTTTCGGCTATTTTGTCTAGCAAAGCCA
AAACCAGGGTGTTCGGGACACAGCGGAGCCCAAGTGGGATGAGGAGTTTGGATCGAGCTGGAGGGCTCCAGT
CCCTGAGGATCCTGTCTATGAGAAGTGCTATGACAAGACCAAGGTCAACAAGGACAACAATGAGATCGTGGACA
AGATCATGGGCAAAGGACAGATCCAGCTGGACCCACAAACCGTGGAGACCAAGAAGTGGCACACGGACGTGATTG
AGATGAACGGGATCAAAGTGGAATTTTTCATGAAATTCACCAGCCGAGATATGAGCCTGAAGAGGACCCCGTCCA
AAAAGCAGACCGGCGTCTTCGGTGTGAAGATCAGCGTGGTGACGAAGCGGGAGCGCTCCAAGGTGCCCTACATCG
TCCGGCAGTGTGTGGAGGAGGTGGAGAAGAGGGGTATCGAGGAGGTTGGCATCTACAGGATATCGGGCGTGGCCA
CGGACATCCAGGCGCTCAAGGCCGTCTTCGATGCCAATAACAAGGACATCCTGTGTGATGTGATGACATGGACA
TCAACGCCATCGCCGGGACGCTCAAGCTGTACTTCCGGGAAGTGCAGGAGCCGCTCCTCAGGACCGACTCTACC
CAGCCTTCATGGAGGGCATCGCCCTGTCTAGACCCTGTGCCAAGGAAAAGTGCATGATGCACCTGTCCGCTCCC
TGCCCCGACCCCAACCTCATCACCTTCTCTTCTGTGGAACACTTGAAAAGGGTTGCCGAGAAGGAGCCCATCA
ACAAAATGTCTACTTACAACTGGCTACCGTGTGTTGGACCCACGTTACTGAGACCCCTCAGAAGTGAGAGCAAAG
CACACCTCACCTCGGCTGCGGACATCTGGTCCCATGACGTATGGCGCAGGTCCAGGTCTCTCTACTACCTGC
AGCACCCCCCATTTCTTTCGCAGAACTCAAGCGGAACACACTGTACTTCTCCACCGACGTGTAGCCCCGAGGCAG
GGTGGCTGCGGGCGGGTGGTGAACAGCCCTCCAGCCTGGGGTCCAAGTCAAGTGTGAAAGACTGCAATAGAA
AACTCCCAAACCCAGCACTCCAGACTCGAGGGAAGCCAGCTTCCAAGAACTGGAATGCGTACGTCTTTTGTGCCA
CCTTGATACAAAGCCGGCTGCCAGCCCCAGCCTCACACCGCATCCCACTCCTGCCCTCCATACCTCTAGTTGT
GTCTGATGCTCCGTGCTGTTTCGGGAATTGTTTTAIGTACACTTGTGAGGCAGAAAAGGTAGTGACCGGCCCGCG
TGGGCACACAGACAGCCCGCTTTGTTCTTTTCACTTCTCCAGCACTTCTTTCCGCTGAGTCCAGCCCAAGGCC
TTTTATTTTGCCTGTGTAAGTGTGCCAGCTTCTCTTGGCCCTGTCCCAGATGGCGGTCTCTGGCAGCCTCC
CCTCAGTCTTCTCCACCCGCTCTTCTTCCCAGCTGCTGATGATGTGACCCCTGGTCTTCTGCTCCATCG
CCTTGAAGCTCTGAAGAGGCCCTGGGTGCGCGCGCAGCAGTGGTCTGTTTGTATGCTGCCGTTTGGCGTGGCG
GCCCCCTCCTCAGACTCCGCTTTGGGAGCACACCTGCTTTGCCTTGTGCTGTGCAAATGTTGGACAAGCAGAC
ACACTCACACTCGTCCCCAGCTTAGCACAGAGCTGGAGCGCCCATTTCTGGAATTTTCCGTTTGGGAATCTCCAC
TTCTGGGGTTTACCTGTTCCGGCCTCCTGCCTATCAGTGAGGCATCTCTGACTGTTTCTTCTACTGCTTTTCACTT
CCCTTCCCTGCTGTTCTATTCTTTTGTAGTGTAAGACTCACAGGTGACCTGCTATCGAGATAGCCAGAGGGTCA

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FIGURE 4644B

GGAGAGAATGGGGGAGGAGGCGGTCAGGCTGCTGAGGAAACACCACAGGCTGAACGGGGGAGGAATGCACATGCC
ACGCTGGGTGTCCCGGGTCGCGGGGAGGCAGCTCAGCTCTTAGGAGCAAGTTGTGGGGGCTTTTCAAGAGGGGGCC
AGGCTTCCTGGAGGGTGACTGATGTGGCCGAAGCAGGTGTCCAGGCAGGTAGGCTGCAGCCAGGAGCTCCCTGGC
ACCGCAGGACCTCGTGGTACTCTTGCCCTTAGATTTTACACACACTCCACAGCCAAGCACTGCCACGGTCCCTCCAG
GACCTGGGAAGCAAAGGCACAGGCCACGGTGGCCAGCCATTGTGGTGCTGCCCCAGCTTCTGGATACAGCCTTT
TGGGTAAACACTGGGAACCTCAGAAGTTGTGGGGAGAGTGGGGAATCAGACAGCCGCTCTAGGGGCTGGGTTC
GCTGGGGCCTCCTTGTTGGTGCTGTAGGCACCCGCCAGGGAGCAGGGACCCGACTTGACAGCGCATTGCCCCGTA
CTAGGAAGGAGTGAGGTGTGTTCCACCGTACACTTCCACACGAGCTGCGGCTGCCAGCCTCGGGCCATCAGCC
TAGGAGAGCAGATGCAGCTCCAGGGGCTCGACTTATAGCCAGTTACAGCTCCCCGGCTCTTCTGTGTGGCAGAGC
GTCGTTTCCGGGCCCTCAGGGCTGGGGAGCTCAGTTCCCATTGCTTGTGCTCAGGGCTGAGTCTTAAAGAAGGGT
TTGCCGGCCCTAACGCTGCAGCGCGTGCGCGGAGAGAGGCCCTTTTGTAGCCTGTTTACTCCTGTGGCCTTGGGC
AGAACAGTAAATACTCTGTGCACGGAGGAAAGACATGCCCAAGAGGAAGGAAGTACTGACCATCGGCTGCCTGTG
AGCAGCTTAGCAAGGAGCCCTTGCTCCCTGGGAAAGGCGGTGAACCTGAGTCTAAAGATGCAGTGCCTGGCCCTT
CCTAAGGTCCCTGCCTGGCATCCGAGTGTCGGTGTTGGCACAGAAGGCTCCTGCTTGCTTCCAAAGTGATGGAC
AGGAAGGGGCAGAGTGAGTCACGGCCAGACTGGGCACCTTCGCGTCTCAGCCTCAGGGAGCCCCACAGCCCCAA
GCTCGCTGAGGCAACGTGAGAACAGGCTATGGGAAGGCTGCAAAGGCTGAGAAATGCAAAGGCTCATATTTATAA
ATCCACCCCCAGAGTGGGGAGGGTCAGGTGCCAGACCTGGACTAACTGCACCAAGGAAACACCCAGCAGGGTC
TCCTGTGAGCCGGGGACCATGCAGCCCGAAACCTCCAGTCACTGCGCCCGGCAGGAGTCAGGAGCCAGGGACTGT
GCAGCCTGGAACCTCCAGTCACTGTGCCAGCAGGGTGGGCTGTGCCAGCAGGAGTCAGGCTAAGAAACGCCAG
GTCGTGCTGTTCTTGCTGGGCAATGGCTGATGGCTGCCAGTTTCTGCTGATACACAGGTAGGATGGGACCCCTCA
TGAATATCTGACTTTAATAAGTTGGTAAGGATATATTTTTTTGTCTATGTTCTGTTTCAACTTATGTAGATTATT
ATAAATTGATGTAAACCACGTGAGAGGAAAATGTTAATAAAAAATGCAAAGCCCCATCATTTGCACAAAACCTC

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FIGURE 4645

GGGACCGAAACCCTTCAGGGAAGTCATTGCAGGGCCCTTGCTTAGAAACAATGGGCAGTCTCTGGAGAGCAGCAG
CCTGGAGGGGTCTCACGTGGGCGTCTATTTCTCCGCACATTGGTGTCCGCCCTGCCGAAGCCTCACCCGGGTCTCT
GGTGAATCCTACCGGAAGATCAAGGAGGCAGGCCAGAACTTCGAGATCATCTTCGTTAGTGCAGACAGGTTCGGA
GGAGTCCTTCAAACAGTACTTCAGTGAGATGCCCTGGCTCGCCGTCCCCTACACGGATGAGGCCCGGGCGGTTCGCG
CCTCAACCGGCTGTACGGAATCCAAGGCATCCCCACGCTCATCATGCTGGACCCGCAGGGCGAGGTGATCACGCG
GCAGGGGCGGGTGGAGGTGCTGAACGACGAGGACTGCCGGGAGTTCCCCTGGCACCCCAAGCCCGTGCTGGAGCT
CTCCGACTCCAACGCCGCGCAGCTTAACGAGGGCCCCCTGCCTCGTCTCTTTTGTAGATTCTGAGGATGACGGAGA
GTCCGAGGCGGCCAAGCAGCTGATTACGCCGATAGCTGAGAAAATCATTGCCAAGTACAAAGCCAAAGAGGAGGA
GGCACCCCTTCTGTTCTTCGTAGCCGGGGAGGATGACATGACTGACTCCCTGCGAGATTACACCAACCTGCCTGA
GGCTGCCCTTTGCTCACCATCTTGACATGTCTAGCCCGGGCCAAGTACGTGATGGACGTGGAGGAGATCACCCC
CGCCATCGTGGAGGCCTTTGTGAATGACTTCCTAGCAGAGAAGCTCAAACCGGAGCCCATCTAGCGTGGCTCCGG
CCTCCTGAGACGTTATTTAAACTCAGCCTTCTCCTCCTCCCCCTCCTTCTTCCGCCCTTGGACTTACCCAGCG
TGCCCCGAATCCCACCAACCAAGTGTCCAGCCTCTCTGTGGTGCCTTGTTCGTGAGTAACTCCTCAGCCAGCA
CCCTGGGGTGTGGAATCAGCAGCGGCAGAGTCCACCGTGTTCGGAGACTCTGTTTGGGAGCACGGGATGGCCGGG
GGCCCGGCCAGAGCGGGGCTGCATGGCTTTCGCAAAGTCACTAGCTTTTGGTGAAGGATCTGCCAGGGTGTCTCTG
GGCAGAGTGAGCGTGGAGGGCGGTGGGTCCCGCTCGGGCTCTGACTCTGACGTCCGCACACACGGCCCCGGACG
GCCAGAGGGGAACCGCCGGGTGACACCTGCGTGGAGGCTGAGCTGAGAAAGGGCCTCCGCTTAGAGCTGCGGGTG
AGGACGTCTTTTCTAAGCAACACAGTCTTCTCGGTCTGAGAGAAAAGCAGCCCACTCTTGTGTTCTCAGGCAG
GGGATCTCCAAATGCAAAAGGAAGCTTGTAGAGTTTTTTGGGTGAGAAGAAAAATGTAGCTAAGGTAATGGTTC
ATATCATACAAACAGCTCCCACGATCCTGAAATTCTGTTAACGAATCCTTCTCTTTGGACATCTTCCCAAGAAAC
TTAGCCCTGAGTCTTAGGAGGAGCACCTCTGCACCAGCACGGACCTCTCGCTCCACCCAGCTCTGTGCCCAAGGC
CCCTGATCTCTGCTGAGGTGCCACACCCACGTTTCGATCACCCCTGCCATTCCCTTTTATTTTCTTTTTTTGAG
ATGGAGTCTTGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCACCATCTTGGCTCACTTCAACCTCCGCCCCAAGG
TTCAAGTGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCACCCGCCACCGTACCTGGCTAATTTT
TGATTTTTTAGTAGAGATGGGGTTTACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACC
CGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCGCCGTGCCCGGCCCTTTTCTTTTCAAAGCAGA
ACTACAAAGATGAGAAATTACCAGAAGCCTCGCCTTTTCTAAGCACCAGCGGAAGGAGCTGTGCCCCGGGATGG
AGTGAGGGTGGAGGGCGCGTCAGCCACGGGTGGGCCTTGTGTGCGCTTGTATCGGCCAGGTAGGTTGTTGGCCT
CTTACTTGGGCTGACCTGACCCCCGAAAGAGAAACAGACAACCTCTGTTCTCAGGATTGGGGATGGACGGCTTCGG
CCAAGCGTTTTAGCCTCATTCACTCAGGCCCCACTCAGCACTCTGCCAGCCAAGACCATTGATTGGAAAAATCCG
GTCCCCACCCGCTAATGAGCTGTTGACACTGTTGTTCCCTTGCTGAATTGGATTGTTGACTTGTAGTTCAGAGGCG
TACAAGTAGTTGGCGATTAGACTTGTTATGTGATGTTACCAGCCTGAAATGCGATCACCCCGTAGGAAATAAAGC
AGGCATCTCTGGACCTC

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FIGURE 4646A

TGGCCGTGTGATTGCTCTGTGCCCATTACCCTGTGGCCGTGTGACTGCTGCTGTGCCCATTACCCTGTGGCCGTG
TGATTGCTGCTGTGCCCATTACCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCT
CTGTGCCCATTACCCTGTGGCCGTGTGATTGCTCTGTGCCCATTACCCTGTGGCCGTGTGATTGCTCTGTGCCCCA
TTATCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGT
GGCCGTGTGATTGCTCTGTGCCCATTACCCTGTGGCCGTGTGATTGCTGCTGTGCCCATTACCCTGTGGCCGTGT
GATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGTGGCTGTGTGATTGCTCT
GTGCCCATTATCCTGTAGCCGTGTGATTGCTTCTGTGCCCATTACCCTGTGGCTGTGTGATTGCTGCTGTGCCCCA
TTATCCTGTGGCTGTGTGATTGCTGCTGTGCCCATTACCCTGTGGCTGTGTGATTGCTCTGTGCCCATTACCCTG
TGGCTGTGTGATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCTGCTGTGCTTACCCTGTGGCTGTG
TGATTGCTCTGTGCCCATTACCCTGTGGCTATGCTCCCTTCATCTGTCATGAGAAAGCTCAGCTGTCTATGCTCTGT
GGTACATGCTCAGTGGCCCCCTGTAGTTTGTACTGTCTCCTATTTCTAAACCCCTCTCCCCACATCCTCTGCTGG
CCCAGCCTTTGCTGGAGGGTCTCGCCTCAGCAGCCAGCTTTTCTTTTACACACTTTTCTGAAGGATCTCAT
TCACCGTCTTGGTTCCGGTGATCCCTCTGGGCAGATACCTCTCAGAATCACATTTCCAGCTTACTTCCCTCCT
GAACTTCCACCTGGCATTTCCTGTGGAGGACATCTGACCTTGATGGCCAAAGCTGAACTCATCTTTCTCTCA
CACCTGCTCTGATTCTCCTCCATTCCTGTATGTGATGTCACCTGGTGGCTCCCAGTTCCAGGCTGGAGAGCT
CGGAAGCCATTCTGGATTCTCGGCCAAGTCTTCTGACTCCAGCTGTGCACTGGCTCTTGTAGTCATCCCTTCT
CCCCGTCCGCTGATGTCTTTAAACCCCTTGTCTCTCAAACCATGACAGCCTACTAACAGCAGTGGCCATCTGG
AAACATTTTCACTATACTGTCTTATTTGGCTTGTCTGTGTGAGGACCCCTTGAACATCTGTGAAGAAATGACTAT
TCTGCATGGAGGCTTCTTGTGGCCGAGCAGCTGTTCACCCCTAAGGCACTGGCAGAAATTAACAAAGTCTGACTG
GGAACGTGTTGGACGGCCCATCGTGGAGGCCCTAAGGGAGATCTCCTCGGCTGCAGCACACTCCCAGCCCTTTC
CTGGAAGAAGAAAGCCCTGATCATCATCTGGGCCAAGGTTCTGCAGCCGCACCCCGTGACCCCGTCCGACACAGA
GACACGGTGGCAGGAAGACCTGTTCTTCTCGGTGGGCAACATGATCCCCACCATCAACCACACCATCCTCTTCGA
GCTGCTCAAATCCCTGGAAGCTTCTGGACTCTTATCCAGCTCCTGATGGCCCTGCCACCACCATCTGCCATGC
AGAACTAGAGCGCTTTCTGGAACATGTGACCGTTGACACTTCTGCCGAAGACGTGGCCTTCTTCTGGACGTCTG
GTGGGAGGTGATGAAGCAACAAGGTCACCCGAGGACCCCTGCTCTCCAGTTTAGTGCAATGGCCCATAAAGTA
CCTGCCTGCCTTAGATGAGTTCCCCCATCCTCAAAGAGGCTTAGGTGAGCCAGACGCGTGCCCCACCATGCC
CCTGTTGGCCATGCTGCTCCGCGGGCTGACACAGATCCAGAGTCGGATCCTGGGCCCCGGGAGGAAGTGTGTGC
GCTGGCCAACCTGGCTGACATGCTGACTGTGTTTGCCTGTGACAGGACGACCCCAAGAGGTGTCTGCAACCGT
GTATCTGGACAACTGGCCACGGTGATCTCTGTGTGGAACCTCGGACACCCAGAATCCCTACCAGCAGGCGCT
GGCAGAGAAGGTGAAGGAGGCAGAACGGGATGTGACCTGACCTCGCTGGCCAAACTXCCCCAGTGAGACATTT
TCGTGGGCTGCGAGTTCTGCAACCTGCTGCGGGAGTGGGGGGAGGAGTTGAGGCGGTGCTCCGACGAGCC
AGGGGACAAGTTACGACAGCTACCGGCTGTGCGACAGTCTGACTTCTTTCAGCCAGAACGCGACGCTCTACCTGA
ACCGCACCAGCCTGTCCAAGGAGGACAGGCAGGTGGTCTCTGAGCTGGCGGAGTGTGTGAGGGACTTCTGAGGA
AAACGAGCACGGTGTGTAAGAACAGGGCCTTGGAGGATATCACAGCTTCCATTGCCATGGCCGTCTATCCAGCAGA
AGATGGACCGCCATATGGAAGTGTGCTACATTTTGCCTCTGAGAAGAAGTGGGCCCTTCTCGGACGAGTGGGTAG
CCTGCCTGGGGAGTAACAGGGCCCTCTTCCGACAGCCAGACTTGGTGTGAGGCTGCTGGAAACAGTGATAGACG
TCAGCACAGCTGACAGAGCCATCCCTGAGTCTCAGATCCGGCAGGTGATCCACCTGATCCTGGAATGTTACGCAG
ACCTCTCCCTGCCAGGTAAAAATAAAGTCTTGCAGGTATCCTGCGTTTCTGGGGGCGAAAGGGCCTCTCTGAAA
AGTTGCTGGCTTATGTGGAGGGTTTTTCAGGAAGACCTCAATAACAATTTTAACCAGCTCACTCAGAGTGCCCTCCG
AACAGGGCTTGGCAAAAGCTGTGGCCTCCGTGGCCCGCTGGTCTAGTGACCCGGAAGTCACGGTGAAGAAAA
TGTGCAGCCTGGCTGTGGTCAATCTCGGCACCCACXAAXGTTTCTGGCCAGATTCTCACTGCCTTCCCTGCCCT
TAGGTTTGTGGAAGAGCAGGGTCCCAATTCATCTGCCACTTTTATGGTGTGATGCCTCAAAGAAACCGTCTGGAT
GAAGTTCTCTACACCAAGGAAGAAAAGCAATTTTTAGAGCTCCTGAACTGCCTGATGAGTCCCGTGAAACCCCA
AGGGATTCCAGTGGCTGCTCTTCTGAGCCAGACGAGGTGCTGAAGGAATTTGTCTGCCTTTCTTGAGGTTAGA
TGTGAAGAGGTAGACCTCAGTCTGAGGATCTTCATCCAGACTCTAGAGGCAAACGCGTGCCGAGAGGAATACTG
GCTCCAGACCTGCTCCCCGTTTCCACTCCTCTTCAGCTTGTGCCAGCTCTTGGACCGCTTACAGCAATACTGGCA
GCTTCCCAAGGAGAAGCGGTGCTCTCTTTGGATAGGAAGGATCTAGCGATCCATATCCTGGAGCTCCTGTGTGA
GATTGTATCAGCCAATGCTGAGACCTTCTCCCCGATGTCTGGATCAAGTCCCTGCTCTGGCTCCACCGCAAGTT

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FIGURE 4646B

AGAACAGCTAGACTGGACTGTGGGCCTGAGGCTGAAGAGCTTCTTCGAGGGGCACTTCAAGTGTGAAGTGCCAGC
CXACAXCTTTTTGAGATCTGTAAGCTTTCAGAAGACGAGTGGACCTCCCAGGCCCACCCAGGGTACGGGGCTGGC
ACGGGGCTCCTGGCCTGGATGGAGTGCTGCTGCGTCTCCAGCGGCATCTCGGAGAGGATGCTGTCTCTCTTGGTG
GTGGACGTGGGCAATCCTGAGGAGGTGAGACTGTTTACGCAAAGGCTTCTGGTGGCCCTGGTGCAAGTCATGCCT
TGGTGACGCCCTCAGGAGTGGCAGCGCCTTACCAGCTGACCAGGAGACTGCTGGAGAAGCAGCTCCTCCATGTC
CCTTATAGCCTGGAATATATTTCAGTTTGTTCCTGCTCAACCTGAAGCCCTTTGCCCAGGAGTTGCAACTCTCC
GTCTCTTCTCCTGAGGACTTTCAGTTTCTCTGCAGCCATAGCTGTCTGATTGGCTTCCTCTGGAAGGCTGGAAC
CACGTGGTCAAACCTCCTCTGTGGCAGTCTGACCCGCTCCTGGACTCAGTCAGGGCGATACAGGCAGCTGGCCCT
TGGGTTCAAGGACCAGAGCAGGACCTGACCCAGGAAGCCCTGTTTGTTTACACCCAGGTGTTCTGCCATGCTCTG
CACATCATGGCCATGCTCCACCCGGAGGTCTGTGAGCCACTCTACGTTTTCAGCTTGGAAACCCCTCAGCTGCTAT
GAGACTTTGAGCAAGACCAACCCCTTCTGTGAGCTCCTTGCTCCAGAGGGCACACGAGCAGCGCTTCTTAAAGTCC
ATTGCTGAGGGCATCGGCCCTGAAGAACGGCGCCAAACCCCTGTTGCAGAAGATGAGCAGCTTCTGACTTGGCGTG
GGGAGCTGGGCCCCAACATGGCGGGTCTGCAGAAGATCAGCAGCTTCTTACCTGTGCGGGAGCGAAAAAGCTGGG
CTTCAACATGGCAGGTCTGTAGGGGTGAGACCCGAGCAGCCTGGACTTTACAGTTATGTGAAACTGTCCACAAA
AGTCATGGCAATAATGGTGTAAGAAAATAGTTTCTTGGGTATTTGTAACGTACAACTATCATAAAAATTCTCC
TCTTTCGC

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FIGURE 4647

CCAACTTCGGCTATGACCTGTACCGGGTGCGATCCAGCATGAGCCCCACGACCAACGTGCTCCTGTCTCCTCTCA
GTGTGGCCACGGCCCTCTCGGCCCTCTCGCTGGGAGCGGAGCAGCGAACAGAATCCATCATTACCGGGCTCTCT
ACTATGACTTGATCAGCAGCCCAGACATCCATGGTACCTATAAGGAGCTCCTTGACACGGTCACTGCCCCCAGA
AGAACCTCAAGAGTGCCTCCCGGATCGTCTTTGAGAAGAAGCTGCGCATAAAATCCAGCTTTGTGGCACCTCTGG
AAAAGTCATATGGGACCAGGCCAGAGTCCTGACGGGCAACCTCGCTTGACCTGCAAGAGATCAACAACCTGGG
TGCAGGCGCAGATGAAAGGGAAGCTCGCCAGGTCCACAAAGGAAATTCCCGATGAGATCAGCATTCTCCTTCTCG
GTGTGGCGCACTTCAAGGGGCAGTGGGTAACAAAGTTTGACTCCAGAAAGACTTCCCTCGAGGATTTCTACTTGG
ATGAAGAGAGGACCGTGAGGGTCCCCATGATGTGCGGACCCTAAGGCTGTTTTACGCTATGGCTTGGATTGAGATC
TCAGCTGCAAGATTGCCCAACTGCCCTTGACCGGAAGCATGAGTATCATCTTCTTCTGCCCCTGAAAGTGACCC
AGAATTTGACCTTGATAGAGGAGAGCCTCACCTCCGAGTTCATTGATGACATAGACCGAGAACTGAAGACCGTGC
AGGCGGTCTCTACTGTCCCCAAGCTGAAGCTGAGTTACGAAGGCGAAGTCACCAAGTCCCTGCAGGAGATGAAGC
TGCAATCCTTGTTTGATTACACAGACTTTAGCAAGATCACAGGCAAACCCATCAAGCTGACTCAGGTGGAACACC
GGGCTGGCTTTGAGTGGAACGAGGATGGGGCGGGAACCAACCCAGCCAGGGCTGCAGCCTGCCCACCTCACCT
TCCCGCTGGACTATCACCTTAACCAGCCTTTCATCTTCGTAAGGACACAGACACAGGGGCCCTTCTCTTCA
TTGGCAAGATTCTGGACCCAGGGGCCCTAATATCCAGTTTAATATTCCAATACCCTAGAAGAAAACCCGAGG
GACAGCAGATTCCACAGGACACGAAGGCTGCCCTGTAAGGTTTCAATGCATACAATAAAAGAGCTTTATCCCT

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FIGURE 4648

ATGGAAGAAGGCTCGGGGCCGAGCCACCCCGGACCGCCGGCCCCAGCCCCCGGTACCTCCTCACC GCAATGGCCC
CCTCGCTCAGCTGGCCGACCATGGCTCCACCGCCAAGACTTCCCCGCGGACCCCGCAACAGCTCCAGCTTCCCCA
CCCGGACCTGAGGATGAGCTGTTTCTAAAAAGACTTTCTAAAGGTTACTTGGTGGGAAAGGACTCGGACGCTCCT
CTTTTCTACAGAGAAGAAGGAAACAAAAATTTACAGGAGAAAGATTACACAGGAGCTGCAGTGCTGTACTCTAAG
GGAGTGTACATTCAAGGCCTAACACTGAGGACATGTCACTGTGTATGCTAACCGCTCGGACGCCCTCTTCCAC
CTGGGTCAGTATGAGACGTGTCTTAAAGACATTAACAGAGCACAGACACATGGGTATCCAGAAAGGTTGCAACCC
AAGATTATGTTACGTAAAGCAGAATGTCTGGTGGCCCTGGGGAGACTGCAGGAGGCAAGCCAGACCATCAGTGAT
CTTGAAAGGAACCTTACAGCCACACCAGCCCTAGCAGATGTCTTCCCTCAGACTCTGCAGAGAAACCTCCATCGT
CTGAAAATGAAGATGCAAGAAAAGGACAGTCTCACAGAAAGCTTCCCAGCAGCTCTGGCCAAAACCTTGAGGAT
GCAGCGCTGAGGGAGGAGAATGAACAACCTTTCCAATGCCTCATCATCCATCGGCTTATGCGTAGATCCTTTAAAA
GGTCGCTGTCTCGTTGCCACAAAAGATATTCTCCCAGGAGAGCTCCTGGTGCAGGAGGATGCTTTTGTGAGTGTT
CTCAACCCAGGAGAACTGCCACCACCGCATCACGGCCTAGACAGCAAATGGGACACCAGAGTCACCAATGGGGAC
CTCTATTGTCACCGATGTTTGAAGCACACTTTGGCCACAGTTCCGTGTGACGGATGCAGTTATGCCAAGTATTGC
AGCCAGGAGTGTTTGCAGCAGGCCTGGGAGCTCTACCACAGGACAGAATGTCTCTGGGAGGGCTGCTTCTCACA
CTGGGTGTCTTTTGGCCACATTGCCCTGAGGTTGACTCTTTTGGTGGGATTTGAGGATGTTTCGCAAAATCATAACG
AAGCTTTGTGATAAGATTAGTAACAAGGACATCTGTTTACCTGAAAGCAACAATCAGGTCAAGACACTTAATTAT
GGCTAGGGGAGAGTGAGAAAAATGGCAACATCGTTGAGACCCCAATTCTTGATGCGATATTAATGGGAAGTAT
GAAAATAATTATAATGCTGTCTTCAACCTTTTGGCCACACTGAAAACCATAGCCAGAGCACAAATTCCTCTGT
GCTCTCTGTGTTTCTGCACTGTGCAGACAGCTAGAAGCAGCCAGTTTACAGGCCATCCCAACTGAGAGGATTGTG
AACTCCTCTCAGCTTAAAGCAGCAGTGACACCTGAATTGTGTCCTGACGTGACTATTTGGGGAGTGGCGATGCTG
AGACACATGTTACAGCTTCAGTGTAACGCTCAGGCGATGACCACCATAACAACACAGAGCGAGCTGTTACGCGG
CTGTGCGGGTGCCAGCGTGACGCCGAGAGCTTCTGTGGGCAGAGCACGCCGTGGTGGGAGAGATCGCGGATGGC
CTGGCCCGGGCTGTGCTGCCTTAGGAGACTGGCAAAAGTCAGCCACCCATCTACAGAGGAGTCTCTACGTGGTG
GAGGTTCCGCCACGGGCCGTCCAGTGTTGAAATGGGCCATGAGCTCTTCAAATTGGCCAGATCTTTTCAACGGG
TTTGAGTACCCGAAGCCCTGAGCACAATACAGAAAGCTGAGGAGGTTCTGTGCTGCACTGTGGCCCATGGGAC
GATGAAATCCAGGAGCTCCAGAAGATGAAATCCTGTTTGTGACTTACCACCCACCCCTGTAGGGCCTGCATTG
TAG

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FIGURE 4649

MSLCHANRSAALFHLGQYETCLKDINRAQTHGYPERLQPKIMLRKAECI VALGRLQEASQTISDLERNFTATPAL
ADVLPQTLQRNLHRLKMKMQEKDSLTESFPAALAKTLEDAALREENEQLSNASSSIGLCVDPLKGRCLVATKDIL
PGELLVQEDAFVSVLNPGE LPPPHHGLDSKWDTRVTNGDLYCHRCLKHTLATVPCDGCSYAKYCSQECLQQAWEL
YHRTECPLGGLLLTLGVFCHIALRLTLVGFEDVRKIITKLCDKISNKD ICLRESNNQVKTLNYGLGEMLKWAMS
SSNWPRSFSTGLQYPKP

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FIGURE 4650

AGAGTAGTTATCTTGATGGAAXTTAGAAGTTTTGAAGTCAGCTGAAGCAGTTGGAGTGAAGATTGGCAATCCAGT
GCCCTATAATGAAGGACTCGGGCAGCCGCAAGTAGCTCCTCCAGCGCCAGCAGXCCAGCCCAGCAGCAAGCAGCA
GGCCCCAGXCCGCXAXGAATGGAAGCTCGGGAATGGGTTCTACTGTTTCTAAGGCTTATGGTGCTTCAAAGACAT
TTGAAAAGCTGCAXGGTCCCAGCCTGTACACACTTCTGGGGGAACAXCAGTCCAAAGTGGTGCCCATTTGCCAG
CCTCACTCCTTACCAGTCCAAGTGGACCATTTGTGCTCGTGTTACCAACAAAAGTCAGATCCGTACCTGGAGCAA
CTCCCCAGGGGAAGGGAAGCTTTTCTCCCTAGAACTGGTTGACGAAAGTGGTGAAATCCGAGCTACAGCTTTCAA
TGAGCAAGTGGACAAGTTCTTTCTCTTATTGAAGTGAACAAGGTGTATTATTTCTCGAAAGGCACCCTGAAGAT
TGCTAACAAGCAGTTTACAGCTGTTAAAAATGACTACGAGATGACCTTCAATAACGAGACTTCCGTCATGCCCTG
TGAGGACGACCATCATTTACCTACGGTTTCAAGTTTACGCGGGATTGATGACCTCGAGAACAAGTCGAAAGA
CTCACTTGTAGACATCATCGGGATCTGCAAGAGCTATGAAGACGCCACTAAAATCACAGTGAGGTCTAACAACAG
AGAAGTTGCCAAGAGGAATATCTACTTGATGGACACATCCGGGAAGGTGGTGACTGCTACACTGTGGGGGGAAGA
TGCTGATAAATTTGATGGTTCTAGACAGCCCGTGTTGGCTATCAAAGGAGCCCGAGTCTCTGTATTTCGGTGGAC
GGAGCCTCTCCGTGCTGTCTTCAAGCAXCTATCATTGCGAATCCTGACATCCCAGAGGCCCTATAAGCTTCGTGGA
TGGTTTGACGCAGAAGGACAAGCCTTAGATGGTGTTCATCTCTGATCTAAAGAGCGGCGGAGTCGGAGGGGAGT
AACACCAACTGGAAAACCTTGTATGAGGTCAAATCCGAGAACCTGGGCCAAGGCGACAAGCCGGACTACTTTAGT
TCTGTGGCCACAGTGGTGTATCTTCGCAAAGAGAACTGCATGTACCAAGCCTGCCGACTCAGGACTGCAATAAG
AAAGTGATTGATCAACAGAAATGGATTGTACCGCTGTGAGAAGTGCACACCGAATTTCCCAATTTCAAGTACCGC
ATGATCCTGTCAGTAAATATTGCAGATTTTCAAGAGAATCAGTGGGTGACTTGTTTCCAGGAGTCTGCTGAAGCT
ATCCTTGACAAAAATGCTGCTTATCTTGGGGAATTAAGAGACAAGAATGAACAGGCATTTGAAGAAGTTTTCCAG
AATGCCAACTTCCGATCTTTTATATTTCAGAGTCAGGGTCAAAGTGGAGACCTACAACGACGAGTCTCGAATTAAG
GCCACTGTGATGGACGTGAAGCCCGTGGACTACAGAGAGTATGGCCGAAGGCTGGTTCATGAGCATCAGGAGAAGT
GCATTGATGTGAGAGGAGCAGTGCCAATCGGGCAGAAGTTTGCAAATAGGCAGAATGGAATCGATTTCTCCCAC
CTCCGTGTGACGATCCCATGTTAGCTACACAGTGCAGAGGCTCTTGATGGTGGACTAAGCAATTTCTCCCTCGT
GCGCATCTCAGAACCCATCGGTAGGCAAAGGAAAATACGCTCAGGTGGTTGTGGTGTAGACTGTGTCAGGCCTAC
GGAGTCAGCCAGTGGCTAGCGCAAGACCAGTCACTCCCTCTGCCTTCAGGCTTCTGTCAATTTATTATCATCAA
GCAGGAATTATGTCGTAAGTCACTGACCCTAAGTGCAGACCATGAAGTAAATTATGTAAGTGGTTTTTGCTTCT
CCAGTGGTGACCAACCCCCCCCCATCCCCGCTCACAACCTTGGGTTCTTCTCAGCGGGGCGAGCTGAGAAGCGGTCA
TGAGCACCTGGGGATTTTAGTAAGTGTGTCTTCCTA

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FIGURE 4651

GATGGCTGCGCTGTTGCTGAGACACGTTGGTCGTCATTGCCTCCGAGCCCACTTTAGCCCTCAGCTCTGTATCAG
AAATTGGTCTCTTCCCATGGCGATGTCCATCTGCCACCGTGGCACTGGTATTGCTTTGAGTGCAGGGGTCTCTCT
TTTTGGCATGTTGGCCGTGTTACTCCCTGGGAACTTTGAGTCTTATTTGGAACCTGTGAAGTCCCTGTGTCTGGG
GCCAGCACTGATCCACACAGCTAAGTTTGCACCTCGTCTTCCCTCTCATGTATCATACTGGAATGGGATCCGACA
CTTGATGTGGGACCTAGGAAAAGGCCTGAAGATTCCCAGCTATACCAGTCTGGAGTGGTTGTCCTGGTTCTTAC
TGTGTTGTCTCTATGGGGCTGGCAGCCATGTGAAGAAAGGAGGCTCCCAGCATCATCTTCCTACACATTATTAC
ATTACCCATCTTTCTGTTTGTCTTCTTATCTCCAGCCTGGGAAAAGTTCTCCTTATTTGTTTAGATCCTTTTG
TATTTTCAGATCTCCTTGGAGCAGTAGAGTACCTGGTAGACCTTAATAGTGGAAAAGGGTCTAGTTTTCCCCTTG
TTTCTAAAGATGAGGTGGCTGXCAAAACTCCCCTTTTTTGCCACAGCTTGCCTACTCTCGGCCTAGAAGCAGT
TATTCTCTCTCCATATTGGGCTTTGATTTGTGCTGAGGGTCAGCTTTTGGCTCCTTCTTCTGAGACAGTGGAAA
CAATGCCAGCTCTXGTGGCTTCTXGCCCTGGGGACGGGCCGGGTGGGGGGTGGGTGGTGAGGCTTTGGGTGCCA
CTACCTGTGGGTTGCTGGCTTAAAGGACAATTCTCTTATTGGTGXAGAGCCCAGGCCATTAAACACCTACACAGT
GTTATTGAAAGAAGAGAGGTGGGGGTGGAGGGGAATTAGTCTGTCCCAGCTAGAGGGAGATAAAGAGGGCTAGTT
AGTTCTTGXGAGCAGCTGCTTTTGAGGAGAAAATATATAGCTTTGGACACGAGGAAGATCCAGAAAATTATCATT
GAACATATTAAATGGTTATTTCTTTTCTTGATTTCXAGAAAAGCCTCTTAATTTTATGCTTTCTCATCGAAGT
AATGTACCCTTTTTTCTGAAACTGAATTAAATACTCATTTT

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FIGURE 4652

MAALLLRHVGRHCLRAHFSPQLCIRNAVPLGTTAKEEMERFWNKNIGSNRPLSPHITIYSWSLPMAMSICHRGTG
IALSAGVSLFGMSALLPGNFESYLELVKSLCLGPALHTAKFALVFPLMYHTWNGIRHLMWDLGKGLKIPQLYQ
SGVVVLVLTIVLSSMGLAAM

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FIGURE 4653

GATGGCTGCGCTGTTGCTGAGACACGTTGGTCGTCATTGCCTCCGAGCCCACTTTAGCCCTCAGCTCTGTATCAG
AAATTGGTCTCTTCCCATGGCGATGTCCATCTGCCACCGTGGCACCTGGTATTGCTTTGAGTGCAGATGTGGGACC
TAGGAAAAGGCCTGAAGATTCCCCAGCTATACCAGTCTGGAGTGGTTGTCCTGGTTCTTACTGIGTTGTCCTCTA
TGGGGCTGGCAGCCATGTGAAGAAAGGAGGCTCCCAGCATCATCTTCCTACACATTATTACATTCACCCATCTTT
CTGTTTGTCAATTCTTATCTCCAGCCTGGGAAAAGTTCTCCTTATTTGTTTAGATCCTTTTGATTTTTCAGATCTC
CTTGGAGCAGTAGAGTACCTGGTAGACCTTAATAGTGGAAAAGGGTCTAGTTTCCCCTTGTTTCTAAAGATGAG
GTGGCTGXCAAAAACCTCCCCTTTTTTGCCACAGCTTGCCCTACTCTCGGCCTAGAAGCAGTTAT

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FIGURE 4654

ATGGCCGCGCAGCGACCCCTGCGGGTCCTGTGCCTGGCGGGCTTCCGGCAGAGCGAGCGGGGCTTCCGTGAGAAG
ACCGGGGCGCTGAGGAAGGCGCTGCGGGGTGCGCGCGAGCTCGTGTGCCTCAGCGGCCCCGCACCCGGTCCCCGAC
CCCCGGGCCCCGAGGGCGCCAGATCAGACTTCGGGTCTGCCCTCCGGAGGAGCAGCCTCGAGGCTGGTGGTTT
TCAGAGCAGGAGGCCGACGTTTTCTCCGCATTGGAAGAGCCCCGCGTCTGCAGGGGCTGGAGGAATCACTGGGG
ATGGTGGCACAGGCACTGAACAGGCTGGGGCCTTTTGACGGCCTTCTTGGTTTCAGCCAAGGGGCTGCGCTAGCA
GCCCTTGTGTGTGCCCTGGGCCAGGCAGGCGATCCCCGCTTCCCCTTGCCACGGTTTATCCTCTTGGTGTCTGGT
TTCTGTCCCCGGGGCATTGGGTTCAAGGAATCCATCCTGCAAAGGCCCTTGTCATTGCCTTCGCTCCATGTTTTT
GGGGACACTGACAAAGTCATCCCCCTCAGGAGAGTGTGCAACTGGCCAGCCAATTTCCCGGAGCCATCACCCCTC
ACCCACTCTGGTGGCCACTTCATTCCAGCAGCTGCACCCCGCGTCAGGCCTACCTCAAGTTCTTGGACCAGTTT
GCAGAGTGAAGATCAAGAAATGTCTCTGCTCCTACATCCAGCTCCTCTAGGGGCAGCCTCCGTCATCCATGCCC
TCCCAGGACCTCCACTCACTGCTGTGAGTGCGCCTCACCAGAACCAGTTAAGAGACAACATCAATTCTTGAGA
CCCAAATTATAAGGGCCCTGCCCTGTACTGAAGAAAAGGGGAGCACAAAGGCCTTAATGGACATTGACTTGTGAAA
ACGCAAAACATGAATATGGTTGGAGAGCCCTGGATTAGGAGGGTGACATGGGGAAGGCAGAGGCTGGCAGCATGGT
GACTGCCACATAATAAAGTGGTGATTTGGATTTTG

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FIGURE 4655

MAAQRPLRVLC LAGFRQSERGFREKTGALRKALRGRAELVCLSGPHVDPDPGPEGARSDFGSCPPEEQPRGWWF
SEQEADVFSALEEPAVCRGLEESLGMVAQALNRLGPF DGLLGFSQGAALAALVCALGQAGDPRFPLPRFILLVSG
FCPRGIGFKESILQRPLSLPSLHVFGDTDKVIPSQESVQLASQFPGAITLTHSGGHFIPAAAPQRQAYLKFLDQF
AE

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FIGURE 4656A

GCGGCGAGGGCGCGGGGGCTCTGAGGACCGCTCGGCGCCGCTCCTGCCACACCATGGGCAGCGCAGAGGACGCA
GTCAAAGAGAACTGCTGTGGAACGTGAAGAAGGAGGTGAAGCAAATCATGGAGGAGGCTGTACACAGGAAGTTT
GTGCATGAAGACAGCAGCCACATCATTGCTTTATGTGGTGCACTGGAGGCTTGCCCTTGTGCATCAGCTGAGACGC
CGTGCCGCTGGCTTCTGCGCAGTGACAAGATGGCAGCCTGTTTACCAAGGTGGGGAAGACGTGCCAGTGGCG
GGGAGATTGGCCACAAGGTACAGGAGCTGCAGCAACAAGCAGAGGGCAGGAAACCTCAGGGGTGAGCCAGGAG
GCCCTGCGGAGACAGGGCTCAGCCAGCGGGAAGGCCCGGCCCTCAGCCCTCAGGCTTGAAACACGTATGGGTA
CGCAGGCGCTCATCGAGAAAGTTCTGGACAAGGTGCTGCAATACCTGGCGGAAAAGTGCAGCAAGTACTACGAG
AAGGAGGCACTGCTGGCAGACCTGTGTTCCGCCGATCCTGGCCTCTCTTCTAGTGGGACCTGTGCCTTGGAA
TACACTAAGCTCAAGACAGCCGATCACTACTGGACTGACCCCTCTGCTGATGAGCTGGTCCAGCGGCACCGCATC
CGGGGTCCACCTACTCGCCAGGACTCCCTGCAAAGCGCCAGCCCTGGGGATCCGGAAACGGCACTCAAGCGGC
AGCGCTCGGAGGACAGGCTGGCTGCCGTGTGCCCGGAGTGTGTGGAGTCCCTGCACCAGAACTCACGGACGCGG
CTGCTCTATGGCAAGAACCACGTGCTGGTGCAGCCGAAGGAGGATATGGAGGCGGTCCCTGGCTACCTCTCCCTG
CACCAGTCTGCAGAGAGCCTGACTCTGAAGTGGACCCCAACCAGCTCATGAATGGGACTCTGGGGGACTCCGAG
CTGGAAGAGAGCGTTTACTGGGACTATGCCCTCGTGGTGCCTTCAGCCAGGTGCTGTGCATCCACTGCCACCAG
CAAAAGAGCGGTGGCAGCCTTGTGCTGGTGAGCCAGGATGGCATCCAGAGGCCGCCGCTGCATTTCCACAGGGA
GGACACCTGCTGTCTTTCTGTCTGTCTGGAGAATGGGCTGCTGCCTCGGGGACAGCTAGAGCCCCGCTGTGG
ACCCAGCAAGGGAAGGGGAAAGTGTTCCTCAAGCTACGGAACGAAGCAGCATTGCTCCGTGGATATGGAGGAG
ATGGGCACGGGGCGGGCCACCGACTATGTGTTCCGGATCATCTACCCCGCCACAGGCACGAGCACAACGCTGGT
GACATGATCGAGATGCAGGGCTTTGGGCCACCGTGCAGCCTGGACCTGGAGCCCCGTGTGCAGTCAGGGCTCC
TCCTGCCTCTCCTGCTCCTCCAGCAGCTCCCCACATGCAACCCCCAGCCACTGTAGCTGCATCCCCGACCGTTG
CCGCTCAGGCTACTGTGTGAGAGTATGAAGAGGAGATCGTGTCCCGGCCCTTCTACGGCTGGCTGGCACACTGC
CGCCACCTGTCCACGGTGCAGGCCACCTGTCCGCGCTGGTGCACCATAGCGTTATCCACCTGACCGGCCCCCG
GGGGCTCCGCGGGCCTACCAAGGACGTGTGGAGCAAGTATCAGAAGGACAAAAAGAACTACAAAGAGCTGGAG
CTGCTGCGGCAAGTTTACTACGGAGGCATAGAGCACGAGATCCGCAAGGACGTCTGGCCCTTTCTGCTTGGCCAC
TACAAGTTCGGCATGAGCAAGAAGGAGATGGAGCAGGTGGACGCAAGGTACCAGCAGGTGTTG
GCAGAGTGGAAAGGCTGCGAGGTGGTGGTGAGGCAGCGGGAGCGGGAGGCCACCCAGCCACACGCACCAAGTTC
TCCTCAGGCAGCAGCATCGACAGCCACGTGCAGCGCTCATCCACCGAGACTCCACCATCAGCAACGATGTGTTT
ATCTCAGTGGATGATCTGGAACCCCCGGAGCCCCAGGACCTGAAGATTCCAGACCAAAACCTGAGCAGGAAGCA
GGACCCGGGACTCCGGGCACCGCGGTGGTGGAGCAGCAGCATTCCGTGGAGTTCGACTCTCCAGACTCAGGACTG
CCCTCCTCTCGCAATTACTCCGTGGCTCGGGCATCCAGTCAAGCCTAGATGAGGGGCAGAGCGTGGGCTTCGAA
GAGGAGGACGGCGGTGGGGAGGAAGGCTCCAGTGGGCCCGGCCCTGCAGCTCACACTTTGAGGGAGCCCCAGGAT
CCCAGCCAGGAGAAGCCTCAGGCCGGAGAAGTGGAGGCCGGAGAGGAGCTTGGGCTGTGTGTGCGGCTGCCTAC
ACTATAGAATTACTGGACACTGTGGCCTTAAACCTGCACCGCATAGACAAGGATGTGCAGAGGTGTGACCGCAAC
TACTGGTACTTCACGCCCCCAACCTCGAGAGGCTCAGAGACGTATGTGCAGCTACGTGTGGGAGCACCTGGAC
GTGGGCTATGTGCAGGGCATGTGCGATCTGCTGGCGCTCTCCTGGTCAACCTCGACAATGATCAGCTGGCCTAC
AGCTGCTTCAGCCACCTCATGAAGAGGATGAGCCAGAAGTTCCTCAACGGGGGTGCCATGGACACCCACTTTGCC
AACATGCGCTCCCTCATCCAGATCCTGGACTCAGAGCTGTTTGAGCTGATGCATCAGAATGGAGACTACACCCAC
TTCTACTTCTGTTATCGCTGGTTCCTGCTGGATTTTAAAGAGAGAAGTGTGTATGAGGATGTGTTTGTGTGTGG
GAGGTGATCTGGGCAGCCAGGCACATCTCATCGGAGCACTTTGTCTGTTTATCGCCCTCGCCCTGGTGGAGGCC
TACCGAGAGATCATCCGTGACAACAACATGGACTTCACTGACATCATCAAGTTTTTCAATGAACGTGCTGAGCAT
CACGATGCCCAGGAGATCCTGCGGATTGCCCGGACCTCGTCCACAAGGTGCAGATGCTCATAGAGAACAAGTGA
GCTGGGGCCAGGAGGCAGCAGCCGTGCAGAGCCTGGGCTCCGGCAGGGAGAGGTGCAGGGGAGTCACCGCCAGA
CCTCCCCAGCCACCAACCGACCCACCTCTGTTCTTAACAAAGCGTTGTGAGCCTGGATCCGACTCCCGGCAGT
GCTGACCCCTGCAGGGCAAGTCAGGGGCCAGGATGCCCTCGGATCAGGGCCGGGATGGGAGGGGTGACCTCAGGG
AGCAGCTGCCTTGGGGGACACACCTACTCTGCTCCCTCTCACACATCTGGGAGTAGCCCCACTGCCACCTGCAG
CCGAGCCTGGACTGCTGCCACGAGTGAACCTGGGGCCCCACAGGATTAACAGGGGCTATAGCGGCTGGGCC
TACTCAGCTGGGGTGGCAGAGGGCGAGAGGCTCTGTGCTGTGTCCCTTCTGAGGGTCCCTTTGCAGTCCAGTAT
ATTGTGCGTGCACAGCCCCAGCTGGAGCAACCAAACTGCTTCTGGTTTAGGCACACGTCACGGGTGCGGGAGA

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FIGURE 4656B

CCCGGGCACGGGAGACCCGGGCGCCTTCAGGCCGCTCCCCGAGATTCTGGGGCAGTCGGAAGATGTGGGCCCT
GGGTGGGAGCAGCCCACTTCAGCAGCACTGCCACTGCCTTTGGCCACCTGAGGTGACCCCCAGGCCTCCCCGGCC
TTGTACAGTGATACCTCTGTGTATCTGTACAGCCTCGCTCCTGCCACCCACCCCTTGCGTTCTGCATTAGGTACTT
CCCTGAAAACACGTGTAAGAAGTGATGCTTTTGCCAGTGATGATCTGGAATGCGACCCGGAGCACTTGCTCTGA
GGAATCCCAGGGTGACTCTGTCTGGGGAAGAATCCGGTCACAGCCTCCCTCAGAGACAGGCCTCAGTTCGAGGGC
AGCCCATTTATCTGTCTCGCAGACATCTGCCATGTCCCTGAGACTGCGGGAGGCAGGGGATGCATGGGTGTCCCCATC
TGTCCTTGGTGAGAAGCAAGGCTAGCTCTGCCTTCCACATGCTTCTCAGGATGCCAAGAGGCCTAGGAACCCAGA
AACCCCTTGGAGGAGCTGTGTATGCGGGGGTGCCAGGAAGGGCATAGCTCCTGCCCCCAGGCCTAGGCATGCTG
CTTGCTCGGCCATCCCCACTTCCTCCTCTACCCCAACACATGCAGGCTAGGCCTTGCCCTGGAACATGGAGGCC
TGCCCGGGGCTGGGGCCTAGTCCAGCAGCCACCAAAGTCTGGCAGACTTTCTGCATTTGAGAAACATGACAAAGG
GCCCCGAGCCCTTCTGCACCCAGCACAGCCTGCCAGCCCAGCCCTGCCCCCGGGCACTGCACAGCCTGTCTGG
GGCCAGACCACCCATTGTCCATCCTTGTGTCCGTGAGTCCTTGGCCTCCACCAAGCACGTGTGGCCATTGTG
TGCTGCCTTAGTGACTCCGTGGTTTTGTGAGGAGCAGAGTGTGTATGATTTTTGCCTCAGAACTATACTCTTC
TGTGTAACAGACCAATAAACAACATTTGTCAAC

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FIGURE 4657

MGSAEDAVKEKLLWNVKKEVKQIMEEAVTRKFBHEDSSHI IALCGAVEACLLHQLRRRAAGFLRSDKMAALFTKV
GKTCPVAGEICHKVQELQQQAEGRKPSGVSQEALRRQGSASGKAPALSPQALKHVWVRTALIEKVLDDKVVQYLAE
NCSKYEKEALLADPVFGPILASLLVGPCALEYTKLKTADHYWTDPSADELVQRHRIRGPPTRQDSPAHRPALGI
RKRHSSGSASEDRLAACARECVESLHQNSRTRLLYGKNHVLVQPKEDMEAVPGYLSLHQSAESLTLKWTNPQLMN
GTLGDSELEKSVYWDYALVVPFSQVVCIHCHQKSGGTLVLVSQDGIQRPPLHFPQGGHLLSFLSCLENGLLPRG
QLEPPLWTQQGKGKVFPLRKRSSIRSVDMEEMGTGRATDYVFRIIYPGHRHEHNAGDMIEMQGFGPSLPAWHLE
PLCSQGSSCLSCSSSSSPHATPSHCSCIPDRLPLRLCESMKRQIVSRAFYGWLACRHLSTVRTHLSALVHHSV
IPDRPPGASAGLT KDVWSKYQKDKNYKELELLRQVYGGIEHEIRKDVWPFLLGHYKFGMSKKEMEQQVDAVVA
ARYQQVLAEWKACEVVVRQREAHPATRTKFSSGSSIDSHVQRLIHRDSTISNDVFISVDDLEPPEPQDPEDSR
PKPEQEAGPGTPGTAVVEQQHSVEFDSPDSGLPSSRNYSVASGIQSSLDGQSVGFEEEDGGGEEGSSGPGPAAH
TLREPQDPSQEKPAQAGELEAGEELAAVCAAAYTIELLDTVALNLHRIDKDVQRCDRNYWYFTPPNLERLRDVMCS
YVWEHLDVGYVQGMCDLLAPLLVTLNDQLAYSCFSLMKRMSQNFNGGAMDTHFANMRSLIQILDSELFELMH
QNGDYTHFYFCYRWFLDFKRELLYEDVFAVWEVIWAARHISSEHFVLFIALALVEAYREIIRDNNMDFTDIKF
FNERAEHHDAQEILRIARDLVHKVQMLIENK

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FIGURE 4658

CGCCGCCCAGCTCCCAGCCGAGGCTTTCTCAACCGCGTCAATAAAAGGCCGCCCGACCCGCCCGCGCCCCGC
AGCCCTGCCGGACACCCCGGGCTGCAGCTGAGCGGGCGCAGACGGGCCGAGGCGGGCGCCGGGCGCGCAGGGACC
GAGGGACCGAGTGCTCCCCATGAGCGCACGTGGGCCGGGCGGTCCGCAAGCCCGGCTGAGAGCGCGCCATGGGGC
AGGCGGGCTGCAAGGGGCTCTGCCTGTGCGCTGTTGACTACAAGACCGAGAAGTATGTATCGCCAAGAACAAGA
AGGTGGGCTGCTGTACCGGCTGCTGCAGGCCCTCCATCCTGGCGTACCTGGTTCGTATGGGTGTTCTTGATAAAGA
AGGGTTACCAAGACGTGACACCTCCCTGCAGAGTGCTGTATCACCAGTCAAGGGCGTGGCCTTCACCAACA
CCTCGGATCTTGGGCAGCGGATCTGGGATGTGCGCGACTACGTCAATCCAGCCAGAATGAAGGCATTCTTGATG
GCGCGTGCTCCAAGGACAGCGACTGCCACGCTGGGGAAGCGGTTACAGCTGGAAACGGAGTGAAGACCGGCCGCT
GCCTGCGGAGAGAGAACTTGCCAGGGGCACCTGTGAGATCTTTGCCTGGTGCCCGTTGGAGACAAGCTCCAGGC
CGGAGGAGCCATTCTGAAGGAGGCCGAAGACTTCACCATTTTCATAAAGAACCACATCCGTTTCCCCAAATTCA
ACTTCTCCAAAAGCAATGTGATGGACGTCAAGGACAGATCTTCTGAAATCATGCCACTTTGGCCCCAAGAACC
ACTACTGCCCATCTTCCGACTGGGCTCCGTGATCCGCTGGGCCGGGAGCGACTTCCAGGATATAGCCCTGGAGG
GTGGCGTGATAGGAATTAATATTGAATGGAACGTGTGATCTTGATAAAGCTGCCTCTGAGTGCCACCCTCACTATT
CTTTTAGCCGTCTGGACAATAAACTTTCAAAGTCTGTCTCCTCCGGGTACAACTTCAGATTTGCCAGATATTACC
GAGACGCAGCCGGGGTGAGTTCCGCACCCTGATGAAAGCCTACGGGATCCGCTTTGACGTGATGGTGAACGGCA
AGGGTGCTTTCTTCTGCGACCTGGTACTCATCTACCTCATCAAAAAGAGAGAGTTTTACCGTGACAAGAAGTACG
AGGAAGTGAGGGGCTAGAAAGACAGTTCCCAGGAGGCCGAGGACGAGGCATCGGGGCTGGGGCTATCTGAGCAGC
TCACATCTGGGCCAGGGCTGCTGGGGATGCCGGAGCAGCAGGAGCTGCAGGAGCCACCCGAGGCGAAGCGTGGA
GCAGCAGTCAGAAGGGGAACGGATCTGTGTGCCACAGCTCCTGGAGCCCCACAGGAGCACGTGAATTGCCTCTG
CTTACGTTTCAGGCCCTGTCTCTAAACCCAGCCGTCTAGCACCCAGTGATCCCATGCCTTTGGGAATCCCAGGATGC
TGCCCAACGGGAAATTTGTACATTGGGTGCTATCAATGCCACATCACAGGACCAGCCATCACAGAGCAAGTGA
CCTCCACGTCTGATGCTGGGGTATCAGGACGGACCCATCATGGCTGTCTTTTTGCCCAACCCCTGCCGTCAGT
TCTTCCTTTCTCCGTGGCTGGCTTCCCGCACTAGGGAACGGGTTGTAAATGGGGAACATGACTTCCTTCGGAGT
CCTTGAGCACCTCAGCTAAGGACCGCAGTGCCCTGTAGAGTTCCTAGATTACCTCACTGGGAATAGCATTGTGCG
TGTCCGGAAGGGCTCCATTTGGTTCCAGCCCACTCCCCTCTGCAAGTGCCACAGCTTCCCTCAGAGCATACTC
TCCAGTGGATCCAAGTACTCTCTCTCTAAAGACACCACCTTCCTGCCAGCTGTTTGCCCTTAGGCCAGTACACA
GAATTAAAGTGGGGGAGATGGCAGACGCTTTCTGGGACCTGCCAAGATATGTATTCTCTGACACTCTTATTGG
TCATAAAACAATAAATGGGTGTCAATTC

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FIGURE 4659

GAACCGCCATCTTCCAGTAATTGCGCCAAAATGACGAACACAAAGGGAAAGAGGAGAGGCACCGGATATATGTTCT
CTAGGCCTTTTAGAAAACATGGAGATGTTCCTTTGGCCACATATATGTGAATCTATAAGAAAGGTGATACTGTAG
ACATCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGGGTTACCATGGCAAACTGGAAGAGTCTACA
ATGTTCCCCAGCATGCTGTTGGCATTGTTGTAAACAAACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAATG
TGCGTATTGAGCACATAAAGCACTCTAAGAGCCGAGATAGCTTCCTGGAACGCGTGAAGGAAAATGATCAGAAAA
AGAAAGAAGCCAAAGAGAAAGGTACCTGGGTTCAACTAAAGCACCAGCCTGCTCCACCCAGGGAAGCACACTTTG
TGAGAACCAACGGAAGGCGCCTGAGCTGCTGGAACCTATTCCCTATGAATTCATGGCATAAATAGGTGTTAAACA
AAAAAAAAATAAAGGATCTCTGGGCTAC

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FIGURE 4660

MRTQRERGEAPDICS LGLLENMEMFLWPHICEIYKKGDTV DIKGMGT VQKGMPHKGYHGKTGRVYNVPQH AVGIV
V NKQVKGKILAKRIN VRIEHIKHSKSRDSFLERV KENDQKKKEAKEKGTWVQLKHQPAPPREAHFVRTNGKAPEL
LEPIPYEFMA

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FIGURE 4661

GAAAGATGGCGGCTACCTTACTAGCTGCTCGGGGAGCCGGGGCCAGCACCGGCTTGGGGGCGGAGGCGTTCACTC
CAGACTGGGAAAGCCGAGAAGTTTCCACTGGGACCACTATCATGGCCGTGCAGTTTGACGGGGGCGTGGTTCTGG
GGGCGGACTCCAGAACAACCACTGGGTCCTACATCGCCAATCGAGTGACTGACAAGCTGACACCTATTCACGACC
GCATTTTCTGCTGTCTGCTCAGGCTCAGCTGCTGATACCCAGGCAGTAGCTGATGCTGTACCTACCAGCTCGGTT
TCCACAGCATTGAACTGAATGAGCCTCCACTGGTCCACACAGCAGCCAGCCTCTTTAAGGAGATGTGTTACCGAT
ACCGGGAAGACCTGATGGCGGGAATCATCATCGCAGGCTGGGACCCTCAAGAAGGAGGGCAGGTGTACTCAGTGC
CTATGGGGGATATGATGGTAAGGCAGTCCTTTGCCATTGGAGGCTCCGGGAGCTCCTACATCTATGGCTATGTTG
ATGCTACCTACCGGGAAGGCATGACCAAGGAAGAGTGTCTGCAATTCAGTGCCAATGCTCTCGCTTTGGCCATGG
AGCGGGATGGCTCCAGTGGAGGAGTGATCCGCCTGGCAGCCATTGCAGAGTCAGGGGTAGAGCGGCAAGTACTTT
TGGGAGACCAGATACCCAAATTCGCCGTTGCCACTTTACCACCCGCCTGAATCCTGGGATTCTAGTATGCAATAA
GAGATGCCCTGTACTGATGCAAAATTTAATAAAGTTTGTACAGAG

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FIGURE 4662

MAATLLAARGAGPAPAWGPEAFTPDWESREVSTGTTIMAVQFDGGVVLGADSRITTTGSYIANRVTDKLTPIHDRI
FCCRSGSAADTQAVADAVTYQLGFHSIELNEPPLVHTAASLFKEMCYRYREDLMAGIIIAGWDPQEGGQVYSVPM
GGMMVRQSFAIGGSGSSYIYGVDATYREGMTKEECLQFTANALALAMERDGSSGGVIRLAAIAESGVERQVLLG
DQIPKFAVATLPPA

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FIGURE 4663

GGGGGAAGATGGCGGCAGCCGTTCTGAGTGGGCCCTCTGCGGGCTCCGCGGCTGGGGTTCTGGCGGGACCGGGG
GTCTCTCGGCAGTGAGCTCGGGCCCGCGCTCCGCCTGCTGCTGCTGGAGAGTGTTCCTGGTTTGCTGCAACCTC
GAACGGGGTCTGCCGTTGCTCCGGTGCATCCCCAAACCGCTCGGCCCCACATTTGCCCGGGCTCATGTGCCTAT
TGCGGCTGCATGGGTGGTGGCGGGGCCAGAACCTTTCAGCTCTTGGGGCATTGGTGAGTCTCAGTAATGCAC
GTCXTXXCAGTTCCATCAAACTCGGTTTGAGGGCCTGTGTCTGCTGTCCCTGCTGGTAGGGGAGAGCCCCACAG
AGCTATTCAGCAGCACTGTGTGTCTTGGCTTCGGAGCATTCAGCAGGTGTTACAGACCCAGGACCCGCCTGCCA
CAATGGAGCTGGCCGTGGCTGTCTGAGGGACCTCCTCCGATATGCAGCCCAGCTGCCTGCACTGTTCCGGGACA
TCTCCATGAACCACCTCCCTGGCCTTCTCACCTCCCTGCTGGGCCTCAGGCCAGAGTGTGAGCAGTCAGCATTGG
AAGGAATGAAGGCTTGATGACCTATTTCCCTCGGGCTTGTGGTTCTCTCAAAGGCAAGCTGGCCTCATTTTTTC
TGTCTAGGGTGGATGCCTTGAGCCCTCAGCTCCAACAGTTGGCCTGTGAGTGTATTCCCGGCTGCCCTCTTTAG
GGGCTGGCTTTTCCCAAGGCCTGAAGCACACCGAGAGCTGGGAGCAGGAGCTACACAGTCTGCTGGCCTCACTGC
ACACCTGCTGGGGGCCCTGTACGAGGGAGCAGAGACTGCTCCTGTGCAGAATGAAGGCCCTGGGGTGGAGATGC
TGCTGTCTCAGAAGATGGTGATGCCCATGTCTTCTCCAGCTTCGGCAGAGGTTTTCGGGACTGGCCCGCTGCC
TAGGGCTCATGCTCAGCTCTGAGTTTGAGCTCCCGTGTCCGTCCCTGTGCAGGAAATCCTGGATTTCATCTGCC
GGACCTCAGCGTCAGTAGCAAGAATATTAGCTTGCAATGGAGATGGTCCCTGCGGCTGCTGCTGCTGCCCTCTA
TCCACCTTGAGGCCTTGACCTGCTGTCTGCACTCATCCTCGCGTGTGGAAGCCGGCTCTTGCGCTTTGGGATCC
TGATCGGCCGCTGCTTCCCCAGGTCTCAATTCTGGAGCATCGGTAGAGATTCCCTCTCTCCAGGCCAGGAGA
GGCCTTACAGCACGGTTCGGACCAAGGTGTATGCGATATTAGAGCTGTGGGTGCAGGTTTGTGGGGCCTCGGCCG
GAATGCTTCAGGGAGGAGCCTCTGGAGAGGCCCTGCTCACCCACCTGCTCAGCGACATCTCCCGCCAGCTGATG
CCCTTAAGCTGCGTAGCCCGCGGGGGAGCCCTGATGGGAGTTTGCAGACTGGGAAGCCTAGCGCCCCAAGAAGC
TAAAGCTGGATGTGGGGGAAGCTATGGCCCCGCCAAGCCACCGGAAAGGGGATAGCAATGCCAACAGCGACGTGT
GTGCGGCTGCACTCAGAGGCCCTCAGCCGGACCATCCTCATGTGTGGGCCTCTCATCAAGGAGGAGACTCACAGGA
GACTGCATGACCTGGTCTCCCTCGGTGATGGGTGTACAGCAGGGTGAGGTCTAGGCAGCTCCCGTACACGA
GCTCCCGCTGCCCGCGTGAACCTTACTGCCTGCTGCTGGCGCTGCTGCTGGCCCCGTCTCCTCGCTGCCACCTC
CTCTTGCTGTGCCCTGCAAGCCTTCTCCCTCGGCCAGCGAGAAGATAGCCTTGAGGTCTCCTCTTTCTGCTCAG
AAGCACTGGTGACCTGTGTGCTCTGACCCACCCCCGGGTTCTCCCTGCAGCCCATGGGCCCCACCTGCCCCA
CACCTGCTCCAGTTCCCCCTCCTGAGGCCCATCGCCCTTCAGGGCCCCACCGTTCCATCCTCCGGGCCCCATGC
CCTCAGTGGGCTCCATGCCCTCAGCAGGCCCATGCCTTCAGCAGGCCCATGCCCTCAGCAGGCCCTGTGCCCT
CGGCACGCCCTGGACCTCCACCACAGCCAACCACTAGGCCTTTCTGTCCAGGCCTAGTGTCTGTCCCTCCCC
GGCTTCTTCTTGCCCTGAGAACCACCGGCAGGCTCAAATGAGGACCCCATCCTTGCCCTAGTGGGACTCCCC
CACCTACTATACCCCCAGATGAACTTTTGGGGGAGAGTGCCAGACAGCCTTTGTCCACTATGACAAGGAGG
AGGCATCTGATGTGGAGATCTCCTTGAAAGTGACTCTGATGACAGCGTGGTGATCGTGCCGAXGGGGCTTCCC
CCCCTGCCACCCCCACCCTCAGGTGCCACACCACCCCTATAGCCCCACTGGGCCACCAACAGCCTCCCC
TCTGTGCCAGCGAAGGAGGAGCCTGAAGAACTTCTGACGCCCAGGGCCTCTCCCGCCACCCCCACCTCCGCC
GCCGCTGTTCCTGGTCTGTGACGCTCCCTCCACCCAGTTGGTCCCTGAAGGGACTCCTGGTGGGGGAGGACC
CCCAGCCCTGGAAGAGGATTTGACAGTTATTAATATCAACAGCAGTGATGAAGAGGAGGAGGAAGAGGAAGA
GGAAGAAGAAGAAGAGGAAGAAGAGGAGGAAGAGGAGGAAGACTTTGAGGAAGAGGAAGAGGATGAAGAGGAATTTT
TGAAGAGGAAGAAGAGGAGGAAGAAGAGTTTGAGGAAGAATTTGAGGAAGAAGAAGGTGAGTTAGAGGAAGA
AGAAGAGGAGGATGAGGAGGAGGAAGAAGAACTGGAAGAGGTGGAAGACCTGGAGTTTGGCACAGCAGGAGGGGA
GGTAGAAGAAGGTGCACCTCCACCCCCAACCTGCCTCCAGCTCTGCCTCCCCCTGAGTCTCCCCAAAGGTGCA
GCCAGAACCCGAACCTGAACCCGGGCTGCTTTTGAAGTGGAGGAGCCAGGGACGGAGGAGCGTGGGGCTGA
CACAGCTCCCACCTGGCCCCCTGAAGCGCTCCCTCCAGGGAGAGGTGGAGAGGGAAGGGGAAAGCCCTGCGGC
AGGGCCCCCXTXCCXXCCAGGAGCTTGTTGAAGAAGAGCCCTCTGCTCCCCCAACCTGTTGGAAGAGGAGACT
GAGGATGGGAGTGACAAGGTGCAGCCCCCACCAGAGACACCTGCAGAAGAAGAGATGGAGACAGAGACAGAGGCC
GAAGCTCTCCAGGAAAAGGAGCAGGATGACACAGCTGCCATGCTGGCCGACTTCATCGATTGTCCCCCTGATGAT
GAGAAGCCACCACTCCACAGAGCCTGACTCCTAGCCATCTTCTGCACCCCACTCTTTGTTCCAATAAAGTTA
TGTCTTAGATAGCG

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MAAAVLSGSPSAGSAAGVPGGTGGLSAVSSGPRRLRLLLLLESVSGLLQPRTGSAVAVPHPPNRSAPHLPLGLMCLLRL
HGSVGG AQNLSALGALVSLSNARLSSIKTRFEGLCLLSLLVGESPTELFQQHCVSWLRSIQQVLQTQDPPATMEL
AVAVLRDLLRYAAQLPALFRDISMNLPLGLLTSLLGLRPECEQSALEGMKACMTYFPRACGSLKGKLASFFLSRV
DALSPQLQQLACECYSRLPSLGAGFSQGLKHTEWEQELHSLLASLHTLLGALYEGAETAPVQNEGPVEMLLSS
EDGDAHVLLQLRQRFSGLARCLGLMLSSSEFGAPVSVPVQEIILDFICRTLSVSSKNISLHGDGPLRLLLLP
SIHLEALDLLSALILACGSRLRLRFGILIGRLLPQVLNSWSIGRDSLSPGQERPYSTVRTKVYAILLELVQVCGASAGMLQ
GGASGEALLTHLLSDISPPADALKLRSPRGS PDGSLQTGKPSAPKKLKLDVGEAMAPPSHRKGDSNANS DVCAAA
LRGLSRTILMCGPLIKEETHRRHLDLVLPLVMGVQQGEVLGSSPYTSSRCRRELYCLLLALLLAPSPRCPPPLAC
ALQAFSLGQREDSLEVSSFCSEALVTCAALHTPRVPPLQPMGPTCPTPAPVPPPEAPSPFRAPPFHPPGPMPSVG
SMPSAGPMP SAGPMP SAGPVP SARPGPPTTANHLGLSVPLVSVPPRLLPGENHRAGSNEDPILAPSGTPPTI
PPDETFGGRVPRPAFVHYDKEEASDVEISLESDDSVIVPEGLPPLPPPPSGATPPP IAPTGPPTASPPVPA
KEEPEELPAAPGPLPPPPPPPPVPGPVTLP PPQLVPEGTPGGGGPPALEEDLTVININSSDEEEEEEEEEEEEE
EEEEEEEEEDFEEDDEDEEYFEEEEEEEEEEFEFEFEFEEGELEEEEEEEDEEEEEEELEEVEDLEFGTAGGEVEEG
APPPPTLPFALPPPE SPPKVQPEPEPEPGLLLEVEEPGTEEERGADTAPTLAPEALPSQGEVEREGESPAAGPPP
QELVEE EPSAPPTLLEETEDGSDKVQPPPETPAEEEMETETEAELQEKEQDDTAAMLADFIDCPDDEKPPPP
TEPDS

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FIGURE 4665

ACAGCGAGCGGAGCCGCGGTCCGGACGGCAGCGCGTGCCCCGAGCTCTCCGCCTCCCCCGCCCGCCAGCCGAGG
CAGCTCGAGCCCAGTCCGCGGCCCCAGCAGCAGCGCCGAGAGCAGCCCCAGTAGCAGCGCCATGCGCCGGGTGGAA
CGCCTACATCGACAACCTCATGGCGGACGGGACCTGTCAGGACGCGGCCATCGTGGGGCTACAAGGACTCGCCCTC
CGTCTGGGCGCGCGTCCCCGGGAAAACGTTTCGTCAACATCACGCCAGCTGAGGTGGGTGTCCTGGTTGGCAAAGA
CCGGTCAAGTTTTTACGTGAATGGGCTGACACTTGGGGGCCAGAAATGTTTCGGTGATCCGGGACTCACTGCTGCA
GGATGGGGAATTTAGCATGGATCTTCGTACCAAGAGCACCGGTGGGGCCCCCACCTTCAATGTCACTGTCACCAA
GACTGACAAGACGCTAGTCCTGCTGATGGGCAAAGAAGGTGTCCACGGTGGTTTGATCAACAAGAAATGTTATGA
AATGGCCTCCACCTTCGGCGTTCCAGTACTGACCTCGTCTGTCCCTTCCCCTTACCCGCTCCCCACAGCTTTG
CACCCCTTTCCTCCCCATACACACAAAACATTTTATTTTTTGGGGCATTACCCCATACCCCTTATTGCTGCCA
AAACCACATGGGCTGGGGGCCAGGGCTGGATGGACAGACCTCCCCCTACCCATATCCCTCCCGTGTGTGGTTG
GAAAACTTTGTTTTTTGGGGTTTTTTTTTCTGAATAAAAAAGATTCTACTAACAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4666

MAGWNAYIDNLMADGTCQDAAIVGYKDSPSVWAAVPGKTFVNITPAEVGVLVGKDRSSFYVNGLTGGQKCSVIR
DSSLQDGEFSMDLRTKSTGGAPTFNVTVTKTDKTLVLLMGKEGVHGGLINKKCYEMASHLRRSQY

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FIGURE 4667A

GGGGGGTGGTGTGGGGTAGAATGGCCGCTGCCGCCGTCACCCGCGGGACCCCGGGAGCACAGACTCCCCCTCCC
CCCGGCCCTCAGGCCGGGGGTGACCTTGCCCCCTGGAGCCCTCACCATGAATACCAAGGACACCACCGAGGTTG
CTGAAAACAGCCACCACCTGAAGATCTTTCTCCCCAAGAAGCTGCTGGAGTGTCTTCTCGCTGCCCGCTGCTGC
CTCCAGAGAGGCTACGGTGGAAATACAAATGAGGAGATTGCATCCTACCTGATCACCTTTGAGAAGCATGATGAGT
GGCTGTCTTGTGCCCAAAGACAAGGCCTCAGAATGGCTCCATCATCCTCTACAATCGCAAGAAGGTGAAATATC
GGAAGGATGGTTACCTCTGGAAGAAGCGGAAGGATGGGAAGACCACCCGAGAGGACCACATGAAGCTGAAGGTCC
AGGGCATGGAGTGTCTCTATGGCTGCTACGTTCACTCTTCCATCGTCCCCACATTCCATCGGCGCTGCTACTGGC
TGCTCCAGAACCCTGACATCGTCTTGTGCACTACCTGAACGTCCAGCCCTGGAGGACTGTGGAAAGGGCTGCA
GCCCCATCTTTTGTTCATCAGCAGCGACCGTCGAGAGTGGCTGAAGTGGTCCCGGGAGGAGTTGTTGGGACAGC
TGAAGCCCATGTTTCATGGCATCAAGTGGAGCTGCCGGAATGGAACAGAAGAGTTCTCTGTAGAACACCTGGTGC
AGCAGATTTTGGACACCCACCCAACCAAGCCTGCTCCCCGAACCCACGCCTGTCTCTGCAGTGGGGGGCTTGGTT
CTGGGAGCCTTACCCACAAATGCAGCAGCAGAAACACCGCATCATCTCTCCCAAAGTGGAGCCCCGAGCTTTAA
CCCTGACCTCTATCCCCACGCTCACCCCCAGAGCCTCCTCCACTGATAGCCCCACTTCCCCAGAGCTCCCCA
AGGCACACACCTCCCCATCTTCTTCTCTTCTTCTCCTCATCAGGTTTTCAGAGCCCCCTAGAAATCAGACCTA
GCCCCCTCCACTTCTCGAGGGGGTCTTCAAGAGGAGGCACTGCTATCCTCCTCTGACAGGACTGGAGCAGCGGG
CTGGAGGCTTGACGCCCACAGGCACCTGGCTCCACAGGCTGATCCTAGGCCTTCCATGAGTTTGGCAGTGGTTG
TAGGCACTGAGCCTTCTGCCCCACAGCTCCTCCAGTCTGCTTTCACCTGATCGTTTTCTCAACAGCCCCC
AGAGGGGCCAGACATATGGAGGGGGGAGGAGTAAGCCAGACTTCCCCGAGGCAGAGGCCGCTCATACCCCT
GTTCTGCCCTAGAGCCTGCTGCTGCCCTGGAGCCCCAGGCAGCTGCTCGGGTCCCCACACAGTCAGTAGCAG
GTGGGAGAAGAGGAAACTGCTTCTTATCCAAAGATGATGACAGTGGGAGGAGCTCAAGGTCACGGGGCTGCC
CACCCATACCTTACCCCCCTCCCTACCCCCACCTCACCTGCCCTTGGAGCCGTCAGCAGGAGGAGGAGGAG
GAGAGGCCCTTGTGTTGGAGGACCTGTTGGGGCCAGTGAACCTGAGCCCTTCAGTCTTTTCATCATTCCAGACCTTA
TGGGAGAATCATCAGTGACGAAGCTCCAAGCATCCCTGCTCCGACCCCCAGCTGTCTCCTGCTCTTAGCACCA
TCACAGACTTCTCCCCAGAGTGGTCTTACCCAGAGGGTGGGGTCAAGGTGCTCATCAGGTCCTTGGACCGAAG
CCGCCGAGCATTACTCCTGTGTCTTTGATCACATCGCAGTGCCAGCCTCACTTGTCCAGCCTGGTGTCTTACGCT
GCTACTGTCCCGCCCATGAGGTAGGGCTGGTGTCTTTCAGGTTGGCAGGGCGGGAGGGGCCCCCTTCTGCTTCTG
TGCTCTTTGAGTATCGAGCCCGCCGATTCTGTCTCTGCCTAGTACTCAACTTGACTGGCTGTCACTGGACGACA
ACCAGTTCCGGATGTCCATACTAGAGCGACTGGAGCAGATGGAGAAGCGGATGGCAGAGATCGCAGCAGCTGGGC
AGGTGCCTTGCCAGGGTCTGATGCTCCTCCAGTTCAGGATGAAGGCCAGGGGCTGGGTTGGAAGCAGGGTAG
TGGTCTTGGTAGAAAGCATGATCCACGCTCCACCTGGAAGGGTCTGAACGTCTGGCCCATGGAAGCCCCCTTCC
GGGGCATGAGCCTTCTGCACCTGGCTGCTGCCAGGGCTATGCCCGCCTCATCGAGACCCTGAGCCAGTGGCGGA
GTGTGGAGACTGGAAGCTTGGACTTAGAGCAGGAGGTTGACCCGCTCAACGTGGATCATTTCTCTTGACCCCTC
TGATGTGGGCTTGTGCCCTGGGACACCTGGAAGCTGCTGTGCTCCTTTTCCGTTGGAACCGACAGGCACTGAGCA
TTCCCGACTCTCTGGGCCGTCTGCCATTGTCTGTGGCTCATTCCCGGGTTCATGTGCGCCTTGCCCGCTGCCTTG
AGGAATAACAGAGACAGGAGCCTTCGGTGGAGCCCCCATTTGCCCTATCGCCACCCTCCTCCAGCCCAGACACTG
GTCTGAGCAGCGTCTCCTGCCCTCGGAGCTGTGGATGGCACCTTTCCGTCACGTACGCTATTCTAGTGCCC
CAGATGGCAGTCCCCCCCCCTGCACCTCTGCCAGCCTCTGAGATGACTATGGAGGACATGGCCCCAGGCCAGCTTT
CCTCTGGTGTCCAGAAGCCCCCTACTCCTCATGGAATATGAGGCTACCAACTCCAAGGGGCCCTCTCCTCCC
TTCCTGCCCTCCCACCAGCTTCAGATGATGGGGCTGCTCCAGAGGACGCTGACAGCCACAGGCTGTGGATGTGA
TCCCGGTGGACATGATCTACTAGCCAAGCAGATCATCGAAGCCACACCGGAGCGGATTAAACGAGAGGACTTCG
TGGGGCTGCCCGAGGCTGGAGCCTCAATGCGGGAGCGGACAGGGGCTGTGGGGCTCAGTGAGACCATGTCTGGC
TGGCCAGCTACCTGGAGAATGTGGACATTTCCCCAGCTCAACCCCTCCAGCGAACTGCCCTTTGAGCGAGGTC
GCCTGGCTGTCCCTTACGACCCCTCCTGGGCAGAGTTTCTCTCTGCATCCACCAGTGGCAAGATGGAAGTGATT
TTGCCCTGCTGACACTATCAGATCACGAGCAGCGGGAAGTGTATGAGGCTGCCCGAGTCATCCAGACGGCCTTCC
GAAAGTACAAGGGCCGGCGGCTGAAGGAGCAGCAGGAGGTAGCAGCAGCTGTAATCCAGCGCTGTTACCGGAAGT
ACAAGCAGCTGACCTGGATTGCACTTAAGTTTGCACTCTATAAGAAGATGACCCAGGCGGCCATCCTGATCCAGA
GCAAGTTCCGAAGCTACTATGAACAGAAGCGATTTTCAGCAGAGCCGCCGAGCGGCTGTGCTCATCCAGCAGCACT
ACCGCTCCTACCGCCGAGGCCCGGCCCTCCCCACCGGACTTCGGCCACCCTGCCTGCCCGCAACAAAGGCTCCT

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FIGURE 4667B

TTCTCACCAAGAAGCAGGACCAGGCAGCCCCGGAAGATCATGAGATTCTGCGGCGCTGCCGACACAGGATGAGGG
AACTGAAGCAGAACCAGGAGCTGGAAGGGCTTCCCCAGCCGGGACTGGCCACATGACCTGGCCACCGCCTTTCTC
ACCACCCTGGGGGCGCCTCGTGCAGTCTTAACAGGGAGAGGGCTTTCTGGGGCAGGGGGAGCCCCCTGTCGGCAGC
TTTCCTGTTACCTTTGTTGGAGCCCTCTGTAGGCCTCCTCCCTCCTCCCCACGCCTTGCTCCACACCCCCCTCTC
CTCGTCCCTCCTGGTCGTGCCCCGTCTCTTTTGGTCCTGGCTCCAGAAAACCCGCGCCCCACATACCTGCATCTT
CCGCTGTGACCTCCGGAGCCCTGCCTGCCCCCTGCTCCCCAGCTCCTCCTGCCTGCACCCGACTCGGCCCCCTCCT
GACTTGCCCTTATTTATTTGTTTCGACGCGTCTCTGAATGTATCCGCTCGGTTCCCACCACTGCCTTCGCTGCGCA
CGCCCCTCGTGTTTCAGGGCTGACCGTGTCCCCACCCGACTCCGCATGTTTGCGTCTGTTTCCTCCCTCTCTGGC
CCTGTCTTACCCCATCACCCGACTCTGGCCACTGACCTCAGGGCCGAAGGGGAGGTGGTGTACATAGGAACGCGT
TGCGGAGTCCGCCCCGTCCCCCGAGGGGAGGGGTCTTGTACATACTGTAACATACAGAGTATAGTGAAGAATCTA
TTTAAGGCGCCGCGGGGAGGGCTGCACGGCCGGGCTTGTGGTTCTCTAGCGCGGCGGGGGCCTCCTGCCGGCTCC
ACGGGCACTTTCTACTTGTGCATGGGCTTGGTTTATACGAATTGCCATTAAACATCGCTGCACC

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FIGURE 4668

MNTKDTTEVAENSHHLKIFLPKKLLECLPRCPLLPPERLRWNTNEEIASYLITFEKHDEWLSCAPKTRPQNGSII
LYNRKKVKYRKDGYLWKKRKDGKTTREDHMKLVQGMECLYGCYVHSSIVPTFHRRCYWLLQNPDIVLVHYLNVP
ALED CGKGCSPIFCSISSDRREWLKWSREELLGQLKPMFHGIKWSCGNGTEEF SVEHLVQQIILDTHPTKPAPRTH
ACLCSGGLGSGSLTHKCSSTKHRIISPKEPRALTLSIPHAHPPEPPPLIAPLPPELPKAHTSPSSSSSSSSSG
FAEPLEIRPSPPTSRGGSSRGGTAILLLTGLEQRAGGLTPTRHLAPQADPRPSMSLAVVVGTEPSAPPAPPSPAF
DPDRFLNSPQRGQTYGGGQGVSPDFPEAEAAHTPCSALEPAAALEPQAAARGPPPQSVAGGRRGNCFFIQDDDSG
EELKGHGAAPPISPSPSPSPSPAPLEPSSRVGRGEALFGGPVGASELEPFSLSSFPDLMGELISDEAPSIPAPT
PQLSPALSTITDFSEWSYPEGGVKVLITGPWTEAAEHYSCVFDHIAVPASLVQPGVLR CYCPAHEVGLVSLQVA
GREGPLSASVLF EYRARRFLSLPSTQLDWLSLDDNQFRMSILERLEQMEKRMAEIAAAGQVPCQGPDAPPVQDEG
QGPGEARVVVLVESMIPRSTWKGPERLAHGSPFRGMSLLHLAAAQGYARLIETLSQWRSVETGSLDLEQEVDP
NVDHFSCTPLMWACALGHLEAAVLLFRWNRQALSIPDSLGRPLPSVAHSRGHVRLARCLEELQRQEPSVEPPFAL
SPPSSSPDTGLSSVSSPSELSDGTFSVTSAYSSAPDGSPPPAPLPASEMTMEDMAPGQLSSGVPEAPLLMDYEA
TNSKGPLSSLPALPPASDDGAAPEDADSPQAVDVIPVDMISLAKQIEATPERIKREDFVGLPEAGASMRERTGA
VGLSETMSWLASYLENVDHFPSSTPPSELPFERGRLAVPSAPSWAEFLSASTSGKMESDFALLTSDHEQRELYE
AARVIQTAFRKYKGRRLKEQQEVA AAVIQRCYRKYKQLTWIALKFALYKKMTQAAILIQSKFRSYYEQKRQQSR
RAAVLIQQHYRSYRRRPGPPHRTSATLPARNKGSFLT KQDQAARKIMRFLRRCRHRMRELKQNELEGLPQPG
AT

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FIGURE 4669

AGGACGTGGGCGTGACAGGACGCGGGCGTGACAGGACGCCAGAGCTGGGTCAGAGCTCGAGCCAGCGGCGCCCGGAG
AGATTTCGGAGATGCAGGCGGGCTCGGATGGCCGCGAGCTTGGGGCGGCAGCTGCTGAGGCTCGGGGGCGGAAGCTC
GCGGCTCACGGCGCTCCTGGGGCAGCCCCGGCCCCGGCCCTGCCCGGCGGCCCTATGCCGGGGGTGCCGCTCAGCT
GGCTCTGGACAAGTCAGATTCCCACCCCTCTGACGCTCTGACCAGGAAAAAACCGGCCAAGGCGGAATCTAAGTC
CTTTGCTGTGGGAATGTTCAAAGGCCAGCTCACCACAGATCAGGTGTTCCCATACCCGTCCGTGCTCAACGAAGA
GCAGACACAGTTTCTTAAAGAGCTGGTGGAGCCTGTGTCCCGTTTCTTCGAGGAAGTGAACGATCCCGCCAAGAA
TGACGCTCTGGAGATGGTGGAGGAGACCACTTGGCAGGGCCTCAAGGAGCTGGGGGCCCTTTGGTCTGCAAGTGCC
CAGTGAGCTGGGTGGTGTGGGCCCTTTGCAACACCCAGTACGCCCGTTTGGTGGAGATCGTGGGCATGCATGACCT
TGGCGTGGGCATTACCCCTGGGGGCCCATCAGAGCATCGGTTTCAAAGGCATCCTGCTCTTTGGCACAAAGGCCCA
GAAAGAAAAATACCTCCCCAAGCTGGCATCTGGGGAGACTGTGGCCGCTTTCTGTCTAACCGAGCCCTCAAGCGG
GTCAGATGCAGCCTCCATCCGAACCTCTGCTGTGCCAGCCCTGTGGAAAAATACTATACCCCTCAATGGAAGCAA
GCTTTGGATCAGTAATGGGGGCCTAGCAGACATCTTCACGGTCTTTGCCAAGACACCAGTTACAGATCCAGCCAC
AGGAGCCGTGAAGGAGAAGATCACAGCTTTTGTGGTGGAGAGGGGCTTCGGGGGCATTACCCATGGGCCCCCTGA
GAAGAAGATGGGCATCAAGGCTTCAAACACAGCAGAGGTGTTCTTTGATGGAGTACGGGTGCCATCGGAGAACGT
GCTGGGTGAGGTTGGGAGTGGCTTCAAGGTTGCCATGCACATCCTCAACAATGGAAGGTTTGGCATGGCTGCGGC
CCTGGCAGGTACCATGAGAGGCATCATTGCTAAGGCGGTAGATCATGCCACTAATCGTACCCAGTTTGGGGAGAA
AATTCACACTTTGGGCTGATCCAGGAGAAGCTGGCACGGATGGTTATGCTGCAGTATGTAAGTGGTCCATGGC
TTACATGGTGAAGTCTAACATGGACCAGGGAGCCACGGACTTCCAGATAGAGGCCGCCATCAGCAAAATCTTTGG
CTCGGAGGCAGCCTGGAAGGTGACAGATGAATGCATCCAAATCATGGGGGTATGGGCTTCATGAAGGAACCTGG
AGTAGAGCGTGTGCTCCGAGATCTTCGCATCTTCCGGATCTTTGAGGGGACAAATGACATTCTTCGGCTGTTTGT
GGCTCTGCAGGGCTGTATGGACAAAGGAAAGGAGCTCTCTGGGCTTGGCAGTGCTCTAAAGAATCCCTTTGGGAA
TGCTGGCCTCCTGCTAGGAGAGGCAGGCAACAGCTGAGGCGGCGGGCAGGGCTGGGCAGCGGCCTGAGTCTCAG
CGGACTTGTCCACCCGGAGTTGAGTCGGAGTGGCGAGCTGGCAGTACGGGCTCTGGAGCAGTTTGCCACTGTGGT
GGAGGCCAAGCTGATAAAACACAAGAAGGGGATTGTCAATGAACAGTTTCTGCTGCAGCGGCTGGCAGACGGGGC
CATCGACCTCTATGCCATGGTGGTGGTTCTCTCGAGGGCCTCAAGATCCCTGAGTGAGGGCCACCCACGGCCCA
GCATGAGAAAATGCTCTGTGACACCTGGTGTATCGAGGCTGCAGCTCGGATCCGAGAGGGCATGGCCGCCCTGCA
GTCTGACCCCTGGCAGCAAGAGCTCTACCGCAACTTCAAAGCATCTCCAAGGCCTTGGTGGAGCGGGGTGGTGT
GGTCACCAGCAACCCACTTGGCTTCTGAATACTCCCGGCCAGGGCCTGTCCAGTTATGTGCCTTCCCTCAAGCC
AAAGCCGAAGCCCTTTCTTAAAGGCCCTGGTTTGTCCCGAAGGGGCCTAGTGTTCAGCACTGTGCCTGCTCT
CAAGAGCACTTACTGCCTCGCAAATAATAAAAAATTTCTAGCCAG

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FIGURE 4670

MQAARMAASLGRQLLRLLGGGSSRLTALLGQPRPGPARRPYAGGAAQLALDKSDSHPSDALTRKKPAKAESKSFV
GMFKGQLTTDQVFPYPSVLNEEQTQFLKELVEPVSRFFEEVNDPAKNDALMVEETTWQGLKELGAFGLQVPSEL
GGVGLCNTQYARLVEIVGMHDLGVGITLGAHQSIGFKGILLFGTKAQKEKYLKPLASGETVAAFCLTEPSSGSDA
ASIRTSAPVSPCGKYYTLNGSKLWISNGGLADIFTVFAKTPVTDPATGAVKEKITAFVVERGFGGITHGPPEKKM
GIKASNTAEVFFDGVRVPSENVLGEVSGGFKVAMHILNNGRFGMAAALAGTMRGIIAKAVDHATNRTQFGEKIHN
FGLIQEKLARMVMLQYVTESMAYMVSANMDQGATDFQIEAAISKIFGSEAANKVTDECIQIMGGMGFMKEPGVER
VLRDLRIFRIFEGTNDILRLFVALQGCMGKELSGLSALKNPFGNAGLLLGEAGQLRRRAGLGSGLSLGLV
HPELSRSGELAVRALEQFATVVEAKLIKHHKGIVNEQFLLQRLADGAIDLYAMVVLSRASRSLSEGHPTAQHEK
MLCDTWCIEAAARIREGMAALQSDPWQQELYRNFKSISKALVERGGVVTSNPLGF

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FIGURE 4671

GAGACCATGGCGGGTAGCAGCACTGGGGGCGGTGGGGTTGGGGGAGACGAAGGTGATTTACCACCTGGATGAGGAA
GAGACTCCCTACCTGGTGAAGATCCCTGTCCCCGCCGAGCGCATCACCTCGGCGATTTCAAGAGCGTCCTGCAG
CGGCCCCGCGGGCGCCAAGTACTTTTTCAAGTCTATGGATCAGGATTTTCGGGGTGGTGAAGGAAGAAATTTTCAGAT
GACAACGCCCGCCTCCCTGCTTCAACGGAAGGTGGTATCCTGGCTGGTGTCTCAGATAATCCCCAACCCGAG
ATGGCCCCCTCCAGTCCATGAGGCTCGGGCAGAACTGGCGCCTCCAGCCCCACCTTTACCTCCTTTTGCCACCCGAG
AGGACCAGCGGCATTGGGGACTCAAGGCCTCCATCCTTCCACCCTAATGTGTCCAGCAGCCATGAGAATCTGGAG
CCTGAGACAGAAACCGAGTCAGTAGTGTCACTGAGGCGGGAGCGGCCTCGCAGGAGAGACAGCAGTGAGCATGGC
GCTGGGGGCCACAGGACTGGTGGCCCCCTCAAGGCTGGAGCGCCACCTGGCCGGATACGAGAGCTCCTCTACCCCTC
ATGACCAGCGAGCTGGAGAGTACCAGCCTGGGGGACTCGGACGAGGAGGACACCATGAGCAGGTTTCAGCAGCTCC
ACGGAGCAGAGCAGTGCCTCCCGCCTCCTTAAGCGCCACCGGCGGCGAAGGAAGCAGAGGCCACCCCGCCTGGAG
AGGACGTATCCTTCAGCAGCGTCACAGATTCACAATGTCTCTCAATATCATCAGTCACGCTAAACATGGAG
AAGTACAACCTCCTGGGTATCTCCATTGTTGGCCAGAGCAATGAGCGGGGAGACGGAGGCATCTACATTGGCTCC
ATCATGAAGGGTGGGGCTGTGGCGGCCGACGGGCGCATTGAGCCAGGGGACATGCTTTTGCAGGTGAATGACATG
AACTTTGAGAACATGAGCAACGATGACGCTGTGCGGGTGCTGAGGGACATTGTGCACAAGCCTGGCCCCATTGTG
CTGACTGTGGCCAAGTGCTGGGATCCCTCTCCTCAGGCCTATTTCACTCTCCCCGAAATGAGCCCATCCAGCCA
ATTGACCCTGCTGCCTGGGTGTCCCATTCGCGGCTCTGACTGGCACCTTCCAGCCTATCCAGGTTCTCTCCTCC
ATGAGCACCATTACATCTGGATCGTCTTTGCCTGATGGCTGTGAAGGCCGGGGTCTCTCCGTCCATACGGACATG
GCATCGGTGACCAAGGCCATGGCAGCTCCAGAGTCTGGACTGGAAGTCCGGGACCGCATGTGGCTCAAGATCACC
ATCCCTAATGCCCTTTCTGGGCTCGGATGTGGTTGACTGGCTCTACCATCACGTGGAGGGCTTTCTTGAGCGGGCGG
GAGGCCCGCAAGTATGCCAGCGGGCTGCTCAAAGCAGGCCTGATCCGACACACCGTCAACAAGATCACCTTCTCT
GAGCAGTGCTATTACGTCTTCGGAGACCTCAGTGGTGGCTGTGAGAGCTACCTAGTCAACCTGTCTCTCAATGAC
AACGATGGCTCCAGTGGGGCTTCAGACCAGGATACCCTGGCTCCTCTGCCTGGGGCCACCCCTGGCCCCCTGCTG
CCCACTTTCTCCTACCAGTACCCTGCCCCACACCCCTACAGCCCCGAGCCTCCACCCTACCATGAGCTTTTCATCT
TACACCTATGGTGGGGGCAGTGCCAGCAGCCAGCATAGTGAGGGCAGCCGGAGCAGTGGGTGACACGGAGTGAT
GGGGGGGCAGGGCGCACGGGGAGGCCCGAGGAGCGGGCCCCCGAGTCCAAGTCCGGCAGTGGCAGTGAGTCTGAG
CCCTCCAGCCGAGGGGGCAGCCTTCGGCGGGGTGGGGAAGCAAGTGGGACTAGCGATGGGGGCCCTCCTCCATCC
AGAGGCTCAACTGGGGGTGCCCCATACTCCGAGCCCCACCCAGGGCTCCATCCCTATGGACCGCCCCCTGGCATG
GCCCTCCCCCTACAACCCCATGATGGTGGTCATGATGCCCCACCTCCACCTCCAGTCCCTCCAGCAGTGCAGCCT
CCGGGGGGCCCCCTCCAGTCAGAGACCTGGGCTCTGTGCCCCAGAACTGACAGCCAGCCGCCAAAGCTTCCACATG
GCCATGGGCAATCCCAGCGAGTTCTTTGTGGATGTTATGTAGCCCACTGTGGGGCCAGGCTGGGCCGGGCGCTCC
TGGTGTGTGACTGGGTGTCTTGCCGTCATGTGCTTGCTTTACAGTGCCTGGGCTCAGCCTACCAGCTGCTGCC
ATACAGGAGATTGTGGCCACTGTGACTCTCACCAGCAGTGCCTGGTTCTCCTCCCCCTTCCCTCAGGGGTAGACAAG
GGACCTTTGATTATTTTTAGCTTTGTTTTTTTATAAGCCTTTTTTGGGGGTTAAATAGAGTTTCTTACATTTTTG
GGACTTTTTTAATAGGCATTTCTCTTTT

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FIGURE 4672

AAAAAAAAAAGAGGGAGGTGGCGGCAGCGGCTAGCGGACTCGAGTCTCAACCGGGCTGAGGCGGACACTTCTG
TGGAGCGAAGCAGTGGGAGCATCGAGCACTAGAGGCGGCACCGGGATCCCCGGCTCCGGGGAGGGGGGCGCCGGA
CCGGGAGGAGGGGAGGGGGCGATGCTGGAAGCCATGGCGGAGCCAGTCCCGAAGATCCACCTCCGACCCCTTAAG
CCAGAGACTCAGCCACCAGAGAAACGGCGGAGAACAAATTGAGGATTTCAACAAATTCTGCAGTTTTGTTTTGGCA
TATGCTGGTTACATTCCCCCTAGCAAAGAGGAAAGTGACTGGCCAGCCTCTGGCTCCAGCTCTCCATTGCGAGGA
GAGAGTGGCGCCGACAGTGATGGCTGGGACTCGGCCCCCTCAGATCTTCGAACCATCCAGACTTTTGTTAAGAAA
GCAAAGTCATCCAAGAGAAGGGCAGCTCAAGCAGGTCCCACCCAGCCAGGACCCCCAAGGTCCACTTTCTCTCGT
CTGCAGGCCCCCGACAGTGCTACCTTGCTTGAGAAGATGAAGTCAAGGACTCTCTCTTTGATCTGGATGGGCCC
AAAGTGGCATCTCCTTTGTCCCCACATCCCTGACACATACCTCCCGGCCCCCTGCTGCTCTTACCCCCGTGCCC
CTTTCCAGGGGGACCTCTCCCATCCTCCTCGAAAGAAGGACCAGAAAGAACCGAAAGTTGGGGCCAGGAGCTGGG
GCTGGCTTTGGGGTGCTTCGGAGGCCTCGGCCAACTCCTGGGGATGGGGAAAAGAGATCTCGAATCAAGAAGAGC
AAGAAGCGGAAGTTAAAAAGGCAGAACGGGGGATAGACTCCCACCTCCTGGGCCTCCCCAGGCACCCCCAGTG
ATACAGACTCTGAAGAGGAGGAGGAAGAGGAGGAAGAGGAAGAAGAAGAGATGGCAACAGTGGTAGGGGTG
AAGCCCCAGTCCCTGTGCTGCCAACCCCCCTGAGGCTCCTAGGCCCCCTGCCACAGTGCACCCTGAAGGAGTCC
CTCCTGCTGACAGTGAAAGCAAGGAGGTGGGCAGCACTGAAACAAGCCAAGATGGAGATGCCAGCTCCAGTGAAG
GCGAGATGCGGGTCATGGACGAGGACATCATGGTAGAATCAGGTGATGACTCATGGGATCTGATCACATGTTACT
GTCGAAAGCCCTTTGCAGGGCGGCCCATGATTGAGTGCAGCCTGTGTGGGACGTGGATCCACCTCTCCTGTGCTA
AGATTAAAGAAGACCAACGTCCCCGACTTCTTTTATTGCCAGAAATGCAAGGAAGTGAAGGCCAGATGCCCGGCGGT
TAGGGGGGCCCCCAAATCTGGAGAGCCCTGATGGCACCAACTTTAGCCTGGAAGTTCCAAATGACAACATGATT
TGGGAAGTGAAGCCTCAGGGTCCTCAGCCTATCCCCTGGAGCTTGATACTGTCTGCACTTCAAGGCAGGAATTCT
CAAGGGAGACTTGTTTGAAAATGAGTGTCTCACTTTCCACCCCTATCCTTCCTCCCCACTCTGTGGACTTGAAAT
TGAATCCATTACGGTTGGGGATGGGAGGCTGTCTGTGTCGACACATAATCTCTGTCTCTTGGACCTGCCACCA
TCACTTTCTGGGTGAGGATTGGAATTGGGATGGAATGGGACAGTTGTCTATAAACTCTAGTGTAATATTAGCA
CTCCCCCTCCCTCATCTTTTCTTCTATTTCACTCCCCATTTATTTCTTCTACACCGGTTGTATTTTAATTTTGG
ACTTCCCCCTATTGGGCATGGCAGCTCAAAGGTGGAGTACTAGAGCCTGGCCAAGTGAGGAAGGAAAGCAGAAAGG
TGACGATTCTCACTCACCTCTTTTGTTTTTAATAATATCGGCCGCTGTTGTACAGACAGCCTGCGTGTGTGAAA
TAAAGCAGGGTGGGCTCTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4673

MLEAMAEPSPEDPPP TLKPETQPPEKRRRTIEDFNKFCSFVLAYAGYIPPSKEESDWPASGSSSPLRGESAADSD
GWDSAPSDLRTIQTFVKKAKSSKRRAAQAGPTQPGPPRSTFSRLQAPDSATLLEKMKLKDSLFDLDGPKVASPLS
PTSLTHTSRPPAALTPVPLSQGDLSHPPRKKDRKNRKLGPAGAGFGVLRPRPTPGDGEKRSRIKKSKKRKLKK
AERGDRLPPPGPPQAPPVIQTLKRRRKRRKRKKKKRWQQW

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FIGURE 4674

GCTCCGCTGAATCCGCCCCGCGCGTCGCCGCCGTGTCGCCGCCCCCGTCCCGGCCCCCCTGGGTTCCCTCAGCC
CAGCCCTGTCCAGCCCCGGTCCCCGGGAGGATGAAGTTCGTGTACAAAGAAGAGCATCCGTTTCGAGAAGCGCCGCT
CTGAGGGCGAGAAGATCCGAAAGAAATACCCGGACCGGGTGCCGGTGATAGTAGAAAAGGCTCCCAAAGCTCGGA
TAGGAGACCTGGACAAAAAGAAATACCTGGTGCCTTCTGATCTCACAGTTGGTCAGTTCTACTTCTTGATCCGGA
AGCGAATTCATCTCCGAGCTGAGGATGCCTTGTTTTCTTTGTCAACAATGTCATTCCACCCACCAGTGCCACAA
TGGGTCAGCTGTACCAGGAACACCATGAAGAAGACTTCTTTCTCTACATTGCCTACAGTGACGAAAGTGTCTACG
GTCTGTGAAGCTGCTGCCCTGAGCTGGAGGGGGGTCTCATTCTACAAAGAGAGAGGTGGCCCCCCTTTCTTGAC
CTCCTCCTCCTTCAAGCTCAAACACCACCTCCCTTATTAGGACCGGGCACTTCTTAATGTTTGTGGCTTTCTCTC
CAGCCTCTCTTAGGAGGGGTAAATGGTGGAGTTGGCATCTTGTAACCTCTCCTTTCTCCTTTCTTCCCCCTTTCTCTG
CCCGCCTTTCCCATCCTGCTGTAGACTTCTTGATTGTCTAGTCTGTGTCACATCCAGTGATTGTTTTGGTTTCTGT
TCCCTTTCTGACTGCCCAAGGGGCTCAGAACCCAGCAATCCCTTCTCTTCACTACCTTCTTTTTTGGGGGTAGT
TGAAGGGACTGAAATTGTGGGGGAAGGTAGGAGGCACATCAATAAAGAGGAAACCACCAAGCTG

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FIGURE 4675

CCGGCGGGCGCCTCAGGTCGCGGGGCGCCTAGGCCTGGGTTGTCTTTGCATCTGCACGTGTTTCGCAGTCGTTTCC
GCGATGCTGCCTCTGCTGCGCTGCGTGCCCCGTGTGCTGGGCTCCTCCGTCGCCGGCCTCCGCGCTGCCGCGCCC
GCCTCGCCTTTCCGGCAGCTCCTGCAGCCGGCACCCCGGCTGTGCACCCGGGCCCTTCGGGCTGCTCAGCGTGCGC
GCAGGTTCCGAGCGGCGGCCGGGCTCCTGCGGCCTCGCGGACCCTGCGCCTGTGGCTGTGGCTGCGGCTCGCTG
CACACCGACGGAGACAAAGCTTTTGTGATTTCTGAGTGATGAAATTAAGGAGGAAAGAAAAATTCAGAAGCAT
AAAACCCTCCCTAAGATGTCTGGAGGTTGGGAGCTGGAAGTGAATGGGACAGAAGCGAAATTAGTGCGGAAAGTT
GCCGGGGAAAAATCACGGTCACTTTCAACATTAACAACAGCATCCCACCAACATTTGATGGTGAGGAGGAACCC
TCGCAAGGGCAGAAGGTTGAAGAAGAGGAGCCTGAACTGACATCAACTCCCAATTTGTTGGTTGAAGTTATAAAG
AATGATGATGGCAAGAAGGCCCTTGTGTTGGACTGTCATTATCCAGAGGATGAGGTTGGACAAGAAGACGAGGCT
GAGAGTGACATCTTCTCTATCAGGGAAGTTAGCTTTTCACTCCACTGGCGAGTCTGAATGGAAGGATACTAATTAT
ACACTCAACACAGATTCCTTGGACTGGGCCTTATATGACCACCTAATGGATTTCTTGCCGACCGAGGGGTGGAC
AACACTTTTGCAGATGAGCTGGTGGAGCTCAGCACAGCCCTGGAGCACCAGGAGTACATTACTTTTCTTGAAGAC
CTCAAGAGTTTTGTCAAGAGCCAGTAGAGCAGACAGATGCTGAAAGCCATAGTTTCATGGCAGGCTTTGGCCAGT
GAACAAATCCTACTCTGAAGCTAGACATGTGCTTTGAAATGATTATCATCCTAATATCATGGGGGAAAAATACC
AAATTTAAATTATATGTTTTGTGTTCTCATTTATTATCATTTTTTCTGTACAAATCTATTATTTCTAGATTTTT
GTATAACATGATAGACATAAAATTGGTTTATCTCCTCC

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FIGURE 4676

MLPLLRCVPRVLGSSVAGLRAAAPASPFQQLQPAPRLCTRPFGLLSVRAGSERRPGLLRPRGPCACGCGGSLH
TDGDKAFVDFLSDEIKEERKIQKHKTLPKMSGGWELELNGTEAKLVRKVAGEKITVTFNINNSIPPTFDGEEEPS
QGQKVVEEQEPELTSTPNFVVEVIKNDGKKALVLDCHYPEDEVGQEDAESESDIFSIREVSFQSTGESEWKDTNYT
LNTDSLWDWALYDHLMDFLADRGVDNTFADELVELSTALEHQEYITFLEDLKS FVKSQ

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FIGURE 4677

CCCGTTCCCTGGAGGCGCGCACAGACCCCTGGGAGGTGTACTTTCCGGGTGCAGACCGCGAATGGATCGCAGCGT
ATTCTGGGAAGTGTGTTTTATCGACCGGCCCCACGTGGAGACAGATTTAGGCATCCAAGCGAAATGCGTGAGGC
CAGCCCCGACCTGCACTGAGGGAGGTAAGTCTTGAGGGAAAGTTCTGGATGCCTGGGTTTACCCAGATGGAGGTGT
CCAATAGGCAATTAGATACACAAGTCTCAGGCTCTCCCCAGGTGCTAGATTTCCAGCAGCACCACCATTATGTTG
ACTTCTCGTCCCGCCCCCTTGGGCTTCAGAAATAATGGTGATTGGCTTTCCCTTGGTGACGCCCCCTGCTTGGTGG
GCTGGCCTCGCCTTCGCCCCCGACCTGGCACGAGCCTCTCGAGCTTCCGGGCCGTCTGCTCGGTGATTGGCCGA
AACAGTGAGTGGACGGCCGCGGATTGGCTGTGCTCAGCGGCGGGCTGAGCAACTGGAGTGAGGGGAGCAGTTGGG
CCAAGATGGCGGCCGCCGAGGGACCGGTGGGCGACGGCGAGCTGTGGCAGACCTGGCTTCCTAACCACGTCGTGT
TCTTGCGGCTCCGGGAGGGACTGAAAAACCAGAGTCCAACCGAAGCTGAGAAACCAGCTTCTTCGTCGTTGCCTT
CGTCGCCGCCGCCGAGTTGCTGACGAGAAACGTGGTCTTTGGCCTCGGCGGAGAGCTTTTCTGTGGGACGGAG
AAGACAGCTCCTTCTTAGTCGTTGCGCTTCGGGGCCCCAGCGGCGGCGGCGAAGAGCCCGCCCTGTCCCAGTACC
AGATGGAGTTTCGCTCTTGTGCCCAGGCTGGAGTGCAATGGCGCCATCTCGGCTCACCGCAACCTCCACCTTCC
AGTTTCAAGCGATTCTTCTGCCTCAGCCCCCCCCGCGAGTAGCTGGGATTACAGAGATTGCTTTGCATAAATCCA
CCCCTGTTTGAAATCTATCAAGTCTTGTTAAGCCCAACACAACATCATGTAGCACTTATAGGAATAAAAGGACTT
ATGGTATTAGAATTACCTAAAAGATGGGGGAAGA

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FIGURE 4678

GAGCAGTTGGGCCAAGATGCGCGGCCGCCGAGGGACCGGTGGGCGACGGCGAGCTGTGGCAGACCTGGCTTCCTAA
CCACGTCGTGTTCTTGC GGCTCCGGGAGGGACTGAAAAACCAGAGTCCAACCGAAGCTGAGAAACCAGCTTCTTC
GTCGTTGCCTTCGTGCGCGCCGCCGCGAGTTGCTGACGAGAAACGTGGTCTTTGGCCTCGGCGGAGAGCTTTTCCT
GTGGGACGGAGAAGACAGCTCCTTCTTAGTCGTTTCGCCTTCGGGGCCCCAGCGGCGGCGGCGAAGAGCCCGCCCT
GTCCCAGTACCAGAGATTGCTTTGCATAAAATCCACCCCTGTTTGAAATCTATCAAGTCTTGTTAAGCCCAACACA
ACATCATGTAGCACTTATAGGAATAAAAGGACTTATGGTATTAGAATTACCTAAAAGATGGGGGAAGAATTCTGA
ATTTGAAGGTGGAATAACAGTGAATTGTAGTACCACTCCAGTTGCGGAGAGATTTTTACCAGTTCCACCTC
TCTGACTCTAAAGCATGCTGCATGGTATCCAAGTGAAATCCTGGATCCCCACGTAGTGCTGTTAATCATCAGACAA
CGTAATCAGAAATTTACTCACTACGTGAGCCGCGAGACACCCACTAACGTGATAATACTTTCAGAAGCCGAAGAGGA
AAGTCTAGTACTCAATAAAGGAAGGGCGTATACCGCATCTCTAGGAGAGACAGCAGTTGCATTTGACTTTGGGCC
ATTGGCAGCAGTCCCAAAGACTCTATTTGGACAAAACGGCAAAGATGAAGTAGTGGCATACCCACTGTACATCTT
ATATGAAAATGGAGAGACTTTCTTGACATACATCAGTCTGTTACACAGCCCTGGAAATATTGGAAAGCTGTTGGG
TCCATTGCCCATGCATCCTGCGGCTGAAGATAACTATGGTTATGATGCGTGTGCTGTACTCTGCTTACCCTGTGT
CCCCAATATCTTAGTGATCGCTACTGAATCAGGAATGCTGTATCACTGTGTGCTGTAGAGGGGAAGAAGAAGA
TGACCACACGTCAGAAAAGTCTGGGATTCCAGGATTGACCTCATTCCTTCTGTATGTGTTTGAATGTGTTGA
GTTGGAGCTTGCTTTGAACTGGCATCTGGAGAGGATGACCCTTTTGATTCTGACTTTTCTTGTCCAGTCAAAT
TCATAGAGATCCCAAGTGCTTCAAGATATCACTGTACTCATGAAGCTGGTGTACATAGTGTGGGCTAACTTG
GATTCATAAACTTCACAAATTTCTTGGATCAGATGAAGAAGATAAGGATAGTTTACAGGAATCTCTACAGAACA
GAAATGCTTTGTTGAACACATCCTTTGTACGAAGCCATTGCCCTGCAGGCAGCCAGCTCCAATTCGAGGATTTTG
GATTGTACCTGACATTCCTGGGACCCACGATGATCTGCATCACCAGTACCTATGAATGCCTCATATGGCCGTTATT
AAGTACAGTCCATCCAGCGTCTCCTCCCTGCTTTGTACTCGAGAAGATGTTGAAGTGGCAGAGTCTCCCTCCG
TGTTCTGGCTGAAACCCAGATTCTTTGAAAAGCATATTAGAAGCATTTTGCAACGTAGTGTGCCAATCCAGC
ATTTTGTAAAGCTTCTGAAAAGGACATAGCCCTCCTCCTGAAGAATGCCTTCAGCTCCTCAGCAGAGCCACCCA
GGTGTTCAGAGAGCAGTACATTCTCAAACAGGACTTGGCAAAGGAGGAGATTACGCGGAGGGTCAAATTATTATG
TGACCAAAAAAAGAAACAACCTAGAAGATCTCAGTTATTGTGAGAAGAGAGGAAAAGTCTGCGGGAATGGCTGA
GCGTTTAGCTGACAAATATGAGGAAGCTAAAGAAAAACAAGAGGATATCATGAACAGGATGAAAAAACTACTTCA
CAGTTTTCACTCTGAGCTCCAGTTCTCTCTGATAGTGAGCGAGACATGAAGAAAGAATTACAGCTGATACCTGA
TCAACTTCGACATTTGGGCAATGCCATCAAACAGGTTACTATGAAAAAGGATTATCAACAGCAAAAGATGGAGAA
GGTGTGAGTCTTCCAAAACCCACCATTATTCTCAGTGCTTACCAGCGAAAGTGCAATTCAGTCCATCCTGAAAGA
GGAGGGTGAACATATAAGGGAAATGGTGAAGCAAATCAATGATATCCGCAATCATGTAACTTCTGACACCACCA
GGAGCTGACTCACACCTGAACTGAACACCATTGAAGGCTTAAACCCATATTGTAAACAGGTTAGATTATCTAAT
TTATAAAAAGGTGTTTTGATG

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FIGURE 4679

MAAAEGPVGDELWQTLPNHVVFRLRLREGLKNQSPTEAEKPASSSLPSSPPPQLLTRNVVFGGLGGELFLWDGED
SSFLVVRLRGPSSGGGEEPALSQYQRLLCINPPLFEIYQVLLSPTQHHVALIGIKGLMVLELPKRWGKNSEFEGGK
STVNCSTTPVAERFFTSSTSLTLKHAAYPSEILDPHVLLTSDNVIRIYSLREPQTPTNVIIILSEAEESLVLN
KGRAYTASLGETAVAFDFGPLAAVPKTLFGQNGKDEVVAYPLYIILYENGETFLTYISLLHSPGNIGKLLGPLPMH
PAAEDNYGYDACAVLCLPCVPNILVIATESGMLYHCVVLEGEEDDHTSEKSWDSRIDLIPSLYVFECVELELAL
KLASGEDDPFDSDFSCPVKLHRDPKCPSTRYHCTHEAGVHSVGLTWIHKLHKFLGSDEEDKDSLQELSTEQKCFVE
HILCTKPLPCRQPAPIRGFWIVPDILGPTMICITSTYECLIWPLLSTVHPASPPLCTREDVEVAESPLRVLAET
PDSFEKHRSILQRSVANPAFLKASEKDIAPPPPECLQLLSRATQVFREQYILKQDLAKEEIQRRVKLLCDQKKK
QLEDLSYCREERKSLREMAERLADKYEEAKEKQEDIMNRMKLLHSFHSSELPVLSDSERDMKKELQLIPDQLRHL
GNAIKQVTMKKDYQQQKMEKVLSPKPTIILSAYQRKCIQSILKEEGEHIREMVKQINDIRNHVNF

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FIGURE 4680A

GGTCAGCGGAGGGTTTGCTCCGTCTCTTGGTGAAC TTGAACAGAGGCAGAGGCAAAAGCAAAACATTTCTGCGCC
AGGAGATGAGGGGCGGTAGAGCXCTTGGXAATGGAGATGTCCTTGACGCCTGGGCAGAGGCTGCAGCTGCAGGAC
CCTGTGGCCACTGGAGATAAGTAATGGTGCCXATTTGAACACCTACTGGAACGGGGCAGGAACAGTGAGTGACC
CCAGGCGAGCACAGGCAGGTGCCAGGAGCCAGGATGCAAGGATGACGCCTCCGGAGGCCCTGGCCTCACTCCCAC
CTGGGCGCTAGGAGCCATCCCAGGGGCTCCAGCCAGGAGCCCTGCTGCCAGGGGCAXTGGCCAAACCTTTCTTCC
GACTCCAGAAAGTTTCTCCGCCGAACACAGTTCTGCTGTTXCTTCCCTCAXCGGCTGCCTACCTGATGACCGGCAG
CCTGCTGCTGCTGCAGCGGGTCCGCGTXGGCTCTCCACAGGGCCCCCGGGCACCCGGCCCCCTGCAGACCTTGC
CAGTGGCCGCCGTGGCGCTGGGCGTGGGCTTGTGTCAGAGCCCCCTGACCCGGCXCCCGGCCCGGCCCGCTGGCTCCGGAGCCGC
TGCTGCTGGGTGTGGACATGCTGCAGAGCCCCCTGACCCGGCXCCCGGCCCGGCCCGCTGGCTCCGGAGCCGC
AACTCGGAGCTGCGTCAGTTGCGTCGCCGCTGGTTCCACCACCTTCATGAGTGACTCCCAGGGACCGCCCGCCCTG
GGCCCCGAGGCTGCCAGGCCCCGCCATCCACAGCCGAGGCACCTACATTGGATGCTTCAGTGACGATGGCCACGAG
AGGACTCTGAAAGGAGCTGTGTTTTATGACTTGAGAAAGATGACTGTCTCCCACTGCCAGGATGCGTGTGCTGAG
CGGTCTATGTCTACGCCGGCTTGGAGGCCGGGGCGGAGTGTTACTGCGGGAACCGGCTGCCAGCGGTGAGCGTG
GGGCTGGAAGAGTGTAACCATGAGTGCAAAGGCGAGAAGGGCTCTGTGTGCGGGGCTGTGGACCGGCTCTCCGTG
TACCGTGTGGACGAGCTGCAGCCGGGCTCCAGGAAGCGGCGGACCGCCACCTACCGCGGATGCTTCCGACTGCCA
GAGAACATCACACATGCCTTCCCCAGCTCCCTGATACAGGCCAATGTGACCGTGGGGACTTGCTCGGGCTTTTGT
TCCCAGAAAGAGTTCCCCTTGGCCATTCTCAGGGGCTGGGAATGCTACTGTGCTTACCCTACCCCCGGTTCAAC
CTGCGGGATGCCATGGACAGCTCAGTATGTGGCCAGGACCCTGAGGCACAGAGGCTGGCAGAATACTGTGAGGTC
TACCAGACACCTGTGCAAGACACTCGTTGTACAGACAGGAGGTTCTGCTTAACAAATCCAAAGTGTGTTGTGGCT
TTGTCAAGCTTCCCAGGAGCCGGGAACACATGGGCACGGCACCTCATTGAGCATGCCACTGGCTTCTATACAGGG
AGCTACTACTTTGATGGAACCCCTCTACAACAAAGGGTTCAAGGGCGAAAAGGACCCTGCGGAGCCACGACACC
ATCTGTGTCAAAACCCACGAGAGTGGCAGGAGGGAGATTGAGATGTTTTGATTACGCCATCTGCTAATCCGGAAC
CCATACAGGTCCCTGGTGGCAGAATTCAACAGAAAATGTGCCGGGCACCTGGGATATGCAGCTGACCGCAACTGG
AAGAGCAAAGAGTGGCCGGACTTTGTCAACAGCTACGCCCTCGTGGTGGTCTCGCACGTCCTGGACTGGCTCAAG
TACGGGAAGCGGCTGCTGTTGGTGCCTACGAGGAGCTGCGGCGCAGCCTGGTGCCACGTTACGGGAGATGGTG
GCCTTCTCAACGTGTCTGTGAGCGAGGAGCGGCTGCTCTGCGTGGAGAACAACAAGGAGGGCAGCTTCCGGCGG
CGCGGCCGGCGCTCCCACGACCCCTGAGCCCTTACCCCCGAGATGAAAGACTTGATCAATGGCTACATCCGGACG
GTGGACCAAGCCCTGCGTGACCACAACCTGGACGGGGCTGCCCAGGGAGTATGTGCCAGATGATAGGCCTGGCCC
ACGCCGCCGCCCGCTGAGTGACGCAATCGCACACCGGGGCTGCGCTCCCCACTCTGATGCTCAGGCCCGTGGC
CTCACTGGGACGAACGGTGGGTGGGGGGCTCACCTGGTGTGCTTCCGCACAAGGAGACCTGGACACAACAGA
CACACATCACAAAGGCGAACACAAATGGACACACATACCTGGCCACGAACCCACACCTCCTCAGACACTCAGACAC
CACTCCAGGCTCATAGCCCCGTCTTGATGCAGAGAAGCCACCCACGTGGGGTGTGCCAGGACCCCCAGATACAA
ATGCAGCCACGCACAGACGTAACACACAGGTGCCAGGCCGTGTGCTCCTGGAGGCTGGCTGGCTGTCTCTCAC
ACAGATACAGTGCCTCCCTGGGATCCGGGAGGCCCTGGGCTTCTGTGTGTAGCCCTGGCATAGACTTGCTCG
TCAGGGTGTTCGACTCTGGGATGCTGGGCCGGGCAGACATTTATGCTCTGAGCAGCAAGGACCATTGGGATGGAG
GTGGGCACAAAGACTGTGCTTCCAGGGTGTGCGGCCCTGGCCGTGTGTCTGACATCCATAAATGTGTGTGTGG
TGTGACTACGGGCACCAAACTCCGCAGCCTTGCTCTCTTTCTCTGTGGCTGGGCTGGCTGCACCATGGGCA
GGGTTGAGGACTGCCCCCACCCTCCCAAGCCAATGCAGACACTGACCTCAAGACCAGCCACACCAAGTCTGTG
CACTGCCCACCACCCCTTCAACCCCTCCTACACCATGCTCCGGGGCCTGGGGCTCCTTGCTGGCTTCTTCTCT
CCAGCTATCCTCAGGGAAGCTGGAGATTCAAGTCATGCCCCAGAAGCAAGGTGTAAGCATGGGGGCGTGGGGAAG
AGGGCAGGAGCTGAAGTTCCAGGGGAGCCCAGGACCCCTGGGGACCTGTACACTAGCAGGATGGGTCTTGGGAGT
TGGCATGGGGAGATTGTAAGGGCTGTATCTCCGCGATTACTGGTACTGGTGTCTCCACCCATAGGGGCCCTGTCT
CTCTGGGGTCCCACACTGGGGTCATGAGAGCTAGTTAGTACTCAGCCTGACCCCTAGGTCTGGTCTGCCAGCCT
GGGATGGGGTCAATGTATGCTACACATCTTGGGCTCACAAGTGAGGCTGTGGAGGCCAGGAGGTTCAAGTATGG
AGGGTAGGAGTGCAACCCAGGAGCAACGCTCAAGGTGGCCGAGATGCAGGGAGGATTGTGGCGATCCGGTTGCAC
ACTGGCCTCTGTGGAGGTCAGGGAGGTGGGAAGGTGGGTGGGCCTGAACCTCAGGCAGCCCTCAGTGGCTTCTTC
AGGCCTAGGATAACCTGGCCAGGCCCATGGTCTGCTCTGGGTCAGCTGTGAGGGAGACCTCCCTTCAGCCTG
AGCCAAGCTGCATTGGGAGGAGAAGGCAGGGTGAGGGATCTGGGAGAGCAGGACGTTGAGATATCCTGACCCCTCT

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FIGURE 4680B

GCTTCCTAGCCTGATGATGGGGAACCCAGAGCCACCCGCTATGAGCACAGGCCGGGGGTGGAAGGCCCAGTAGAG
CTGCCCTTCCCCAGATGGAAGCTTCCTCCAACCTTCAGTTTGGCCAGTGGGTGGGTTTGGGCATCTGTGCCCTG
GTGGCCTCCAAATCCTTCCTGGGATTCCCCCAAACCCACACTGATGCGAAGCTGTTCTTGACCCTCCCATAGCAT
CAACTCAGTTTCAGCTCAAAGCTAGAAAACACCAAGGTCTTTGAAAATGTTTATTGGCTCAGGATAGCTTCGGCATC
CAATCTGCGAAGGCCCTGATGGAGCTATTTCTTCCTAGTATCAGGAGCAATTGAGACCCCTCAGGAGTTTCCAC
ACTGCTGTGGACGGGATAGCCAGGGCAGACCTGCATCCCAGAGCAAGCCTAGATCCTTGAAAGCAATGTCAGGCG
TGGCAGTGGGGAAGCCATGGAGGCTGGGAAGGGCAAAGTGTGGAGAGAGGAGTGACCGGGACTGGAGCCAGGGTC
TGGGGAGAGCAACAGCACCAGGCTTTTCCTGGTAGTTGGATTGGTACATTCACTGCTGCCAGGTACCCAGAGATG
TCATCTCTCTCCAGGTAGAGCATCACCAGCTCCTGTGGCCTTGTAGATGACTCTGTACCTCAGTGAAGAGTGCAG
GCAAGTAGAGTGATGGGGTCAGTGTCCATCCAGTTTACGCTGAGTCAGTCCATACAGCAAGACACCTGGCACTTG
GCAGGTACTCCTGGATGTTGATGAGCAAGGAAGAGCAACGGCCCTGTCAGCTGGCAGTGGTCTCACAGCCTTCA
TCCCAGGTCTGCCTACGTGGGAGATCTCATCAGAAACAGGAACGGGGATCTGTCTGTGCTTGCAGGAAAGTCCAT
TTGTTTTTCTCCAAGTTAGGTCTCATCTACAGCTCTTAGCTTCTCAGTAAAGAGGATACTCTCCCAACCAGCCAA
GGAATAAAAGCTGATCTGTATGTAGGGCAGAAGTGTGGCAAATGCATCAGGAACCGGTTAGAACAGAACAGAGAA
ACCGTGACTGTCTACAGATTCCAACTTTAATAGCAAGCCTGTGGAGTTACACAAACCTGTGTTAAACATGTAAT
TTTTATGGATTTTCATCTCCCGTTGTGGATCAATTTGGAAAAACCAAATATGTAATTTTAAAAAACTAAACACA
TCCTGGTAGTCCCAGTGATGTGTAAATGAGAGAGAAGAATAGACAGGCTTCCAAACCCCTGGGAAGAAAGCTGCTT
AATTATGTGAACATCTTATAATGAAGTCTCTTGACGCTAAAATTAGATTTTGAGTGCATGAATCTGTGATAATGT
TTGCATATCAGAATGCATTCTCCCTTAAAAGTAGCAGTAGCCACTTGGTTCTTAGGGGGCCCCAAGAGGAGAGG
AGAAGTGCTGAGGTTGATGTTACGACTGCAAGAATTCTTGGGACACAGGTTTGTCTTCTGCTGACTTGCTCGGAA
ACCCATTGGAGGTATCTGAAATGTGATGACTCCAAAGGGGTTCAATTCCTATAGGGAGAAATTGATTGCTCTGA
CTTCCTATTTATCACCCTCAATATTGGGTGAGTTGGTCTGAACAAGGTGGGGATAAAGTAGAGTGGAAATAATG
TAGAGTCGTCAGACTGAAAGGCCAGGTTGTAGTCCCAGCTCTTATCTGCCATCTTGACAAAGCTTTTCCCATCT
CCAGTCTCAGTTTCCCATCCATAAAATGGGGGAAGTGGTAGGTCTTGCTGATTGCATCCACATTTCCTCCAT
TTCCTTTCCAGCAACCCCCCATTTCTGTTTGGGAATTCATATGATCTGCCAGAGCCTCTCCAGGGGTGGAATAC
ATGTCTTGACTAAGCCAATGACACCTTCCATCTTCCAGCTATGGTGAAGTGGGTTAGGTATGATCTTGTGAGTT
AAGACAATGAAGCCAGAGGGAATTTCAAGACTTATGGGAATGCTGGGTAGAAGCTGTTTTAATTCCTGTTGAA
TGTGAAAAAGGTAGTAGTATTCTGGGTCTTTATGATGACCACCTTGGGCCTTGGGATCATGACCAGGAATCAG
TGAAGCTGACACCCTGAAGGGAGAGTTGAGAGGCAGAAAGAGATCAAGTCCTTGGTGAAATTGTTTAAGTACAG
GATCAAGCCTTGCTTGAGATTGGCCTTACCTCTGGACTTTTTTTGTTATATGAGCTAATAAATTCTGTTTATTGT
TT

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FIGURE 4681

MAKPFFRLQKFLRRTQFLLFFLTAAYLMTGSLLLLQRVRVALPQGPRAPGFLQTLPVAAVALGVGLLDSRALHDP
RVSPDLLLGVDMLQSPLTRPRPGPRWLRSRNSLRQLRRRWFHHFMSDSQGPPALGPEAARPAIHSRGTYIGCFS
DDGHERTLKGAVFYDLRKMTVSHCQDACAERSYVYAGLEAGAECYCGNRLPAVSVGLEECNHECKGEKGSVCGAV
DRLSVYRVDELQPGSRKRRTATYRGCFRLPENITHAFPSSLIQANVTVGTCSGFCSQKEFPLAILRGWECYCAYP
TPRFNLRDAMDSSVCGQDPEAQLAEYCEVYQTPVQDTRCTDRRFLPNKSKVFVALSSFPAGNTWARHLIEHAT
GFYTGSIYFDGTLYNKGFKGEKDHWSRRTICVKTHESGRREIEMFDSAILLIRNPYRSIVAEFNRKCAGHLGYA
ADRNWKSKEWPDFVNSYASWWSSHVLDWLKYGKRLLVVHYEELRRSLVPTLREMVAFLNVSVSEERLLCVENNKE
GSFRRRGRRSHDPEPFTPEMKDLINGYIRTVDQALRDHNWTGLPREYVPR

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FIGURE 4682

CTTAGTGGTGTCTCGGGGTCTAGTGGACAGAGAAGACTCTTGGCCAGGCAGATGGCTTCTCGGTGGCAGAACATGGG
GACCTCCGTGCGCCGGAGATCTCTCCAGCACCAGGAGCAGCTGGAGGACAGCAAGGAGCTGCAGCCTGTGGTCAG
CCATCAGGAGACCTCTGTAGGGGGCCCTGGGGTCCCTGTGCAGACAGTTCCAAAGGAGGCTGCCCCTGAGAACCGT
CAACCTCAACCTCCGCGCAGGGGCCCTCCTGGAACGCCTGGAAACCCAGAGCCAGGTACAGCAGGGCCTCCAGGC
TGCAGCTCGCTCAGCTAAGAGTGCTTTGGGTGCCGTGTCCCAGAGAATCCAGGAGTCCTGCCAAAGTGGCACCAA
GTGGCTGGTGGAGACCCAGGTGAAGGCCAGGAGGCGGAAGAGAGGAGCACAGAAGGGCAGTGGATCCCCAACTCA
CAGCCTGAGCCAGAAGAGCACCCGGCTGTCTGGAGCCGCCCTGCCCCTCAGCCGCAGACCCCTGGGAGAAGGA
GCATCACCGCCTCTCTGTCCGGATGGGCTCACATGCCCCACCCATTACGGCGATCAAGGCGGGAGGCTGCCTTCCG
GAGCCCTACTCCTCAACAGAGCCCCCTCTGCTCTCCAGCGAGTCTGACAGTGACCTAGAGCCTGTGGGGGCGGG
AATTCAGCATCTCCAGAAGCTGTCCCAAGAGCTAGATGAAGCCATTATGGCGGAAGAGAGTGGTGACATCGTCTC
TCTCATTGACTGAGGAAGTGCCCTGCAGGAAACAAGCCCTGTCTGACCGCCAAGGCTTCATACTCAAGGATGT
CTATGCTTCCCCGTGTGCTTCCTGGAAAAAACCCCGGGAGTCGTCAGTACCCCTGGGCCACTGCTAACAAGCAC
CTAACAAGGGGGCCAGAGCCCCCTGCTCCAGCCACATCTGGACCCATCAGTGACTGCCTGCCATAGCCTGAGAGT
GTCTTGGGGAGACCTTGAGAGGGGGGAGAAATGTTCCCTTCTGCTTTTCTAGGGGACTCTTGAGCTTAGAACTCA
TCGTACACTTGACCTTGAGCCTTCTATTTGCCTCATCTATAACATGAAGTGCTAGCATCAGATATTTGAGAGCTC
TTAGCTCTGTACCCGGGTGCCTGGTTTTTGGGGAGTCATCCGCAGAGTCACTCACCCACTGTGTTTCTGGTGCCA
AGGCTCTTGAGGGCCCCACTCTCATCCCTCCTTTCCCTACAGGGACTCGGAGGAAGGCATAGGAGATATTTCCA
GGCTTACGACCCTGGGCTCACGGGTACCTATTTATATGCTCAGTGCAGAGCACTGTGGATGTGCCAGGAGGGGTA
GCCCTGTTCAAGAGCAATTTCTGCCCTTTGTAAATTATTTAAGAAACCTGCTTTGTCAATTTATTAGAAAGAAAC
CAGCATGTGACTTTCCTAGATAACACTGCTTTCATAATAAGACTATTTGCATTTG

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FIGURE 4683

MASRWQNMGTSVRRRSLQHQEQLSDSKELQPVVSHQETSVGALGSLCRQFQRRRLPLRTVNLNLRAGPSWKRLETP
EPGQQGLQAAARSAXSALGAVSQRIQESCQSGTKWLIVETQVKARRRKRGAQKSGSPTHSLSQKSTRLSGAAPAH
SAADPWEKEHHRLSVRMGSHAHPLRRSRREAAFRSPYSSTEPLCSPSESDSDLEPVGAGIQHLQKLSQELDEAIM
AEESGDIVSLIHD

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FIGURE 4684

ATGGATGCCGCTCTGCTCCTGAACGTGGAAGGGGTCAAGAAAACCATTTCTGCACGGGGGCACGGGCGAGCTCCCA
AACTTCATCACCGGATCCCGAGTGATCTTTCATTTCCGCACCATGAAATGTGATGAGGAGCGGACAGTCATTGAC
GACAGTCGGCAGGTGGGCCAGCCATGCACATCATCATCGGAAACATGTTCAAGCTCGAGGTCTGGGAGATCCTG
CTTACCTCCATGCGGGTGCACGAGGTGGCCGAGTTCTGGTGCGACACCATCCACACGGGGGTCTACCCCATCCTA
TCCCGGAGCCTGAGGCAGATGGCCAGGGCAAGGACCCACAGAGTGGCAGCTGCACACGTGCGGGCTGGCCAAC
ATGTTGCGCTACCACACGCTGGGCTACGAGGACCTGGACGAGCTGCAGAAGGAGCCTCAGCCTCTGGTCTTTGTG
ATCGAGCTGCTGCAGGTTGATGCCCGAGTGATTACCAGAGGGAGACCTGGAACCTGAGCAATCATGAGAAGATG
AAGGCGGTGCCCGTCTCCACGGAGAGGGAAATCGGCTCTTCAAGCTGGGCGCTACGAGGAGGCCTCTTCCAAG
TACCAGGAGGCCATCATCTGCCTAAGGAACCTGCAGACCAAGGAGAAGCCATGGGAGGTGCAGTGGCTGAAGCTG
GAGAAGATGATCAATACTCTGATCCTCAACTACTGCCAGTGCTGCTGAAGAAGGAGGAGTACTATGAGGTGCTG
GAGCACACCAGTGATATTCTCCGGCACCACCCAGGCATCGTGAAGGCCTACTACGTGCGTGCCCGGGCTCACGCA
GAGGTGTGGAATGAGGCCGAGGCCAAGGCGGACCTCCAGAAAGTGCTGGAGCTGGAGCCGTCCATGCAGAAGGCG
GTGCGCAGGGAGCTGAGGCTGCTGGAGAACCGCATGGCGGAGAAGCAGGAGGAGGAGCGGCTGCGCTGCCGGAAC
ATGCTGAGCCAGGTGCCACGCAGCCTCCCGCAGAGCCACCCACAGAGCCACCCGCACAGTCATCCACAGAGCCA
CCTGCAGAGCCACCCACAGCACCATCTGCAGAGCTGTCCGCAGGGCCCCCTGCAGAGCCAGCCACAGAGCCACCC
CCGTCCCCAGGGCACTCGCTGCAGCACTGAGCCCCCTGAGGCCACAGCCACCCAGGCAGGGAGCAAGTGGCCTG
GTCACCTCTGGTTTCGATTGACCAGGATCGTGGTGTCACCTTTTAAAAATTAAAAATTAATTTTGAATCAAAGTC
AGACACACCCATGGTAAAAAAAAAAAAAAAAACAATCCCAAGGGTACAGAAGAGCTTATGAATAAAAGTAGTTTTT
CTCCTCTACCCCTCTCATTCTTCCGTGCCATGGTTTTAATTGACCCTGTTTTTAATTCTTCTGGTAGTTTTCTC
TATTTCCAAGTAATCTGTTTAAATCAGTTTCTAGATTTTACCCCATGTCAATGACAAATGAGGATTTGATGCTCT
GATCCTTTCTCATGCCTGATACCCCTCCCTGTCTCCCATTTTGGATAGTTACATTTGGGGGTCTCTCGGTGAT
TTTTGTAACTTTACGCAGGACACTTAGAGCTCTCTAGAATCCCACTGACTTTAGTGGGTCTTGATGTAGGGTGGG
CAAGCCCCGACACTGGAGCTTAGCCTGAGAGGGTTCTTG

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FIGURE 4685

MDAALLLNVEGVKKTILHGGTGELPNFITGSRVIFHFRTMKCDEERTVIDDSRQVGQPMHIIIGNMFKLEVWEIL
LTSMRVHEVAEFWCDTIHTGVYPILSRSLRQMAQGKDPTEWHVHTCGLANMFAYHTLGYEDLDELQKEPQPLVFV
IELLQVDAPSDYQRETWNLSNHEKMKAVPVLHGEGNRLFKLGRYEEASSKYQEAIICLRNLQTKKEKPWEVQWLKL
EKMINTLILNYCQCLLKKEEYEVLEHTSDILRHHPGIVKAYYVRARAHAEVWNEAEAKADLQKVLELEPSMQKA
VRRELRLLENRMAEKQEEERLRCRNMLSQGATQPPAEPPTEPPAQSSTEPPAEPPTAPSAELSAGPPAEPATEPP
PSPGHSLOH

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FIGURE 4686

GGCCAGCGCGGCCGGXGCCCCCTXCGXCCTXCCCACCCAGGGCGCTGAGCACGCACGXCCGCCGGCCTGGTGTTT
CGGXCGGGGGCCCCGGGACCAGCCGCCGCTTCTCCAGGCGCTCCTACTCTCTGGGCATCTGCAGTCCGAGCGGAA
GGGCGGGGAAXCGTCGGCGACGCCGAGGGAGCAAAGCCCACGATCGGCTTCCCAGGGGACGCGACGGCTGCCTTC
CTCCCCGGCGCAAACGCACCGCCCAGGAGGGGGCGGGCTCGGGCGGTCGGGGGGCGGGGCCGGGGTCCGAGCTCGG
GCCCXGCCCTCCGCTCCGCCAGCTCCTGTGAGCTGCCGAGTGCTAGGCACCCGGGCTCTTCTGGGGGCTCCAGAA
CTAAGCCACCCAGACACCATCATCCCGAAAAACCCAGCCCTTCTCCCATGGCAGGCTACTTGCCCCCCCCAAAGGX
TACGCCCCCTTCGCCCCCACCTCCCTACCCTGTACCCCTGGGTACCCGGAGCCGGCGCTACATCCTGGGXCCCCG
GCAGGCGCCAGTGCCCCGCCAGGTACCTGCCCCAGXCTCCCGGCTTCGCCCTCTTCCCTCGCCTGGCCCCGTGG
CCTTGGGGTCTGCTGCCCCCTTCTTGCCACTGCCAGGGGTGCCTTCTGGCCTCGAATTCTGGTGAGATTGATC
AGATTTTGATTACCCAGAAGGCTGAGCGAGTGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCAC
GTGCTACAGACCTGGCATCCCTTCCCTCCCCAAGTTCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTG
GTGGGGCCCTGCTGGACCTGTGGCTGTGGCACAGACCAACTTTGAGGTGAAGACXTCGGGATGAATCCCGCAG
TGTGGGCCGCATCAGCAAGCAGTGGGGGGCCTGGTCCGAGAAGCCCTCACAGATGCAGATGACTTTGGCCTACA
GTTCCCGCTGGACCXXTGAXTXGXXTGXAGGGTGAAGGCTGTGCTGCTGGGAGCCACATTCTCATTGACTA
CATGTTCTTTGAGAAGCGAGGAGGCGCTGGGCCCTCTGCCATCACCAGTTAGAGGCCACCATTGGTGTGAGGAGAC
CATCACCTCGACCAGAACTCCAGATGGTCACCTGCCCTGGCCCCCTCTCTGGGCAGCCCCCTTCTCTCCATGTACA
CTGCAGGGGACAGXAAGGGGGGCCCCATCCCTACCCTACTCCCTGGCCGCTGXCCCCCTGTGGTTCCCAAGGAGG
GGTATGTATGAGAGCCGCTCTCCTGTACCTXCCCACCACTGTCCCAGCAGTCCCTCGGCACACAGGCATATCAG
CTTTCACACTTTCCCCATGCACTCTCTCCACCCCTTCCAGGGCCTCTGCTCCAAAGGAGGCCTCTGGAACCCA
GGACTCTGGGGTTTTACAAGXAGGGCTGGGGTGTGGAAGGGCAAGCTGCACCAAAGACGGTGGATATAGCCACCG
CCCCCGCCGCTGCCTAGCATCTGCTTGGCCAATTAGTTTACGCTCAGACCATGGCACTTTGAGGGGGTCTCTA
CCTCCCCATCAACAGCTGCAGGGGGACCCAGTGCCAACCTCCTCTCCAXCTAGGGCCCTGCCTTCAGCTGGTG
CTTGCTGCGATTCTGTGCCTTATGTAAGTGCCTTCCCTTCCCTTGCCCTXAGGAAAAAGGCTGCATCTTTATAT
GTTACATTCATATAAACTTTGTAACTTTTTGACATTG

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FIGURE 4687

CTAGTTTCTAAGGATCATGTCTGCGAGCCAGGATTCCCGATCCAGAGACAATGGCCCCGATGGGATGGAGCCCCGA
AGGCGTCATCGAGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCG
TGGCATCTACGCCTATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCTACCTTGTATCAAGGGTTA
TGATGTGATTGCTCAAGCCCCAATCTGGGACTGGGAAAACGGCCACATTTGCCATATCGATTCTGCAGCAGATTGA
ATTAGATCTAAAAGCCACCCAGGCCTTGGTCCTAGCACCCACTCGAGAATTGGCTCAGCAGATACAGAAGGTGGT
CATGGCACTAGGAGACTACATGGGCGCCTCCTGTACGCCTGTATCGGGGGCACCAACGTGCGTGCTGAGGTGCA
GAAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTGATATGCTTAACCGGAGATA
CCTGTCCCCCAAATACATCAAGATGTTTGTACTGGATGAAGCTGACGAAATGTTAAGCCGTGGATTCAAGGACCA
GATCTATGACATATTTCCAAAAGCTCAACAGCAACACCCAGGTAGTTTTGCTGTGAGCCACAATGCCTTCTGATGT
GCTTGAGGTGACCAAGAAGTTCATGAGGGACCCCATTCGGATTCTTGTCAAGAAGGAAGAGTTGACCCTGGAGGG
TATCCGCCAGTTCTACATCAACGTGGAACGAGAGGAGTGGAAGCTGGACACACTATGTGACTTGTATGAAACCCT
GACCATCACCCAGGCAGTCATCTTCATCAACACCCGGAGGAAGGTGGACTGGCTCACCAGAGAAGATGCATGCTCG
AGATTTCACTGTATCCGCCATGCATGGAGATATGGACAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTT
TGGCTCTAGCAGAGTTTTGATTACCACTGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCAT
CAACTATGACCTTCCCACCAACAGGGAAAACCTATATCCACAGAATCGGTGAGGTGGACGGTTTGGCCGTAAAGG
TGTGGCTATTAACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCAT
TGAGGAAATGCCCCCTCAATGTTGCTGACCTCATCTGAGGGGGCTGTCTGCCACCCAGCCCCAGCCAGGGCTCAAT
CTCTGGGGGCTGAGGAGCAGCAGGAGGGGGGAGGGGAAGGGAGCCAAGGGATGGACATCTTGTCAATTTTTTTTCTT
TGAATAAATGTCACTTTTTTGAGGCAAAAGAAGG

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FIGURE 4688

MSASQDSRSRDNGPDGMEPEGVIESNWNNEIVDSFDDMNLSSESLLRGIYAYGF EKPSAIQQRAILPCIKGYDVIAQ
AQSGTGKTATFAISILQQIELDLKATQALVLAPTRELAQQIQKVVMA LGDYM GASCHACIGGTNVRAEVQKLQME
APHIIVGTPGRVFDMLNRRYLSPKYIKMFVLDEADEMLSRGFKDQIYDIFQKLNSNTQVVLLSATMPSDVLEVTK
KFMRDP IRILVKKEELTLEGIRQFYINVEREEWKLDTLCDLYETLTITQAVIFINTRRKVDWLTEKM HARDFTVS
AMHGDM DQK ERDVIMREFRSGSSRVLITTDLLARGIDVQQVSLVINYDLPTNRENYIHRIGRGGRFGRKGVAINM
VTEEDKRTL RDIETFYNTSIEEMPLNVADLI

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FIGURE 4689

GAGCTAGCTTTGCAATATGGCGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGA
GAAATGCTACGACCAACTTTTCGTTTCAGTGGGACTTGCTTCACGTCCCCTGCCTCAAGATTCTCCTCAGCAAAGG
CCTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTTAAATCCGGGGAGCCAAGAG
TGCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCAC
TAACAACTTCCCATTTCAGCTCTTGGGGTGAAGCCTTATTCTGATGCTCCAGACGATCACCATCTGCTTCCTGGT
CATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCTCGCTTGCTACGGCCTGGTCCTGCTGGTGCTTCT
CTCACCTCTGACGCCCTTGACTGTAGTCACCCTGCTCCAGGCCTCCAATGTGCCTGCTGTGGTGGTGGGGAGGCT
TCTCCAGGCAGCCACCAACTACCACAACGGGTACACAGGCCAGCTCTCAGCCATCACAGTCTTCTGCTGTTTGG
GGGCTCCCTGGCCCGAATCTTCACTTCCATTTCAGGAAACCGGAGATCCCCTGATGGCTGGGACCTTTGTGGTCTC
CTCTCTCTGCAACGGCCTCATCGCCGCCAGCTGCTCTTCTACTGGAATGCAAAGCCTCCCCACAAGCAGAAAA
GGCGCAGTAGAGCCAGCTACTGGAGTCATTCCGTTTCCACTCATTACCCAACTCAGGGTTCTCCCCATCTGAG
CCAGCCTGCTGGTGTGACTTACTCATCCTCCATTCTCTGCACTTGCAGACTTTCTGAGCCAGGGTTTTCTTTTA
GTGGAACAATGGTTGATGGATCCAGATCCTTAGAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATT
TTGACATTTGAGTGCTTTGTAAGCCCTGTACATGTACTATTAATTTCAGTCATTTCAGCCAAGCCTCCTCCTCTAG
CAGCAATTTCCAGCTGTTTAACACTATCCTGGGCAAATGTTTTACCCTGTCCTCCAGCCTCCCTGCTTCCCTTCT
GGCCTTGAAAGACTGAGTCTGGACGGCAGAGTGGAGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCGG
CTGGGACTGTCTCCCGACCCAGTGTGGGGTGGGGGAAGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGG
TGGGGTGAGGAGGTTCTGCTCTGGCAGGTCTAGGCGGAAGGGAGTGGAGATGGGGCTGGTTGCTGCTGCAGTGA
GGGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAATGCAAAAAAAAAAAAAA

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FIGURE 4690

MAEADGPLKRLLPILLPEKCYDQLFVQWDLHVPCLKILLSKGLGLGIVAGSLLVKLPQVFKIRGAKSAEGLS
LQSVMLELVALTGTMVYSITNNFPFSSWGEALFLMLQTITICFLVMHYRGQTVKGVAFACYGLVLLVLLSPLTP
LTVVTLLQASNVPVVVGRLLQAATNYHNGYTGQLSAITVFLLFGGSLARIFTSIQETGDPLMAGTFVVSSLCNG
LIAAQLLFYWNAPPHKQKKAQ

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FIGURE 4691

TTAAGGAGGTGCAGTCTTATGGGAGGGACAGGGGCGGAGTCAGTCTTTAAAAGCTGTTCCCAGGTCTGGCCCGCC
TGCCACAAACGCTGAGCCCAGGTGGGAGAGGTCTGGCCTATCCGCGCCTGGCAGCTGTCGGAACCTCCGGAGACCA
CAAAGGGGTTTATGGTTTACCCCTCCACGGAAGGTCCGGTCTGATCGCAGCTGCGGGTCGGGAGAGGGACCGG
GGTCCCCAGTCAGTAGGCCTCAGAACACCTCTTCAGTGCCGGGGCACCAGACAGCGGATTTTGCATTTCGACTCT
CCCCAAAGTGTGCCGAACAGGTTGGAAGCAAAGGCTCCGGTTTAAAGCTCTGGGCTTGGGGATAAAATACACTTTT
TAAGGACCCAAGTTCCTCGGCAACGACTCCAGACTGGGAAGACCTTTCCATTTTCAGGATCGACGCTTCACGTTG
AGGGGAGGGCATTTCAGGACGCCCTCTTAAGGCTTCTCCCAACCCATGGCGCTACCAGGCTCCTCACAGGACCAGG
CCTGGAGCCTGGAGCCTCCGGCTGCCACGGCTGCTGCCTCCTCATCTTCGGGACCCCAGGAGCGGGAGGGCGCTG
GGAGCCCCGCGGCCCCCGGGACGCTGCCCCTGGAGAAGGTGAAGCGGCCGATGAACGCGTTTCATGGTGTGGAGCT
CCGCTCAGCGCCGCCAGATGGCGCAGCAGAACCCCAAGATGCACAACTCCGAGATCTCCAAGCGCCTGGGCGCGC
AGTGAAGCTGCTGGACGAGGACGAGAAGCGGCCCTTCGTGGAGGAGGCCAAGCGGCTCCGCGCCCCGACACCTGC
GCGACTACCCGACTACAAGTACCGGCCTCGGCGCAAGGCCAAGAGCTCGGGCGCCGGACCTTCCCGCTGCGGAC
AGGGAAGAGGCAACCTGGCCAGCGGCGGCCCGCTCTGGGGGCGGGGTACGCGACCACCCAACCGAGCAGAGGCT
TTGGGTACAGACCCCCAGCTACTCGACAGCCTACCTGCCTGGCAGCTATGGCTCTTCCCACTGCAAACCTGGAAG
CCCCCTACCGTGCTCCCTCCCTCAGAGTGACCCTAGGCTCCAGGGGGAAGTGTGCCCACCTATACCCACTACC
TGCCCCCTGGCTCTCCCACTCCATACAACCTCCCCCTTGCTGGTGCCCCCATGCCCTAACCACCTCTAAACCT
CATGGACGCAGACCTCACGGGACGGGCCTCATCCTCCTTTTTTAATCCAGCAGCATCCCCTACCCAGGCTGTCA
ACCTTTCTCCTGTTGGACTACAGTTCAGAGGCAGCCTGCAGTCTCCCATGATAGCCAGGGAGAGCCGCACAAC
ATACAATTATATTTTGGTAGTATTAAACAGTTTTGTATTATTC

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FIGURE 4692

MALPGSSQDQAWSLEPPAATAAASSSSGPQEREGAGSPAAPGTLPLEKVKRPMNAFMVWSSAQRROMAQQNPKMH
NSEISKRLGAQWKLLDEDEKRPFVVEEAKRLRARHLRDYPDYKYRPRRKAKSSGAGPSRCGQGGRGNLASGGPLWGP
GYATTQPSRGFGYRPPSYSTAYLPGSYGSSHCKLEAPSPCSLPQSDPRLQGELLPTYTHYLPPGSPTPYNPPLAG
APMPLTHL

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FIGURE 4693

ACTTGTCATGGCGACTGTCCAGCTTTGTGCCAGGAGCCTCGCAGGGGTTGATGGGATTGGGGTTTTCCCTCCCA
TGTGCTCAAGACTGGCGCTAAAAGTTTTGAGCTTCTCAAAAGTCTAGAGCCACCGTCCAGGGAGCAGGTAGCTGC
TGGGCTCCGGGGACACTTTGCGTTCGGGCTGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCA
GCCAGACTGCCTTCCGGGTCACTGCCATGGAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGG
AAACATTTTCAGACCTATGGAACTACTTCTGAAAACAACGTTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATG
ATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAAGATGC
CAGAGGCTGCTCCCCGCGTGGCCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCTGCACCAGCCCCCTCCTGGC
CCCTGTCACTCTTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCACTCTG
GGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACCTGCC
CTGTGCAGCTGTGGGTTGATTCCACACCCCCGCCCCGACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAC
AGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTC
AGCATCTTATCCGAGTGAAGGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGG
TGGTGCCCTATGAGCCGCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACATACATGTGTAACAGTTTCT
GCATGGGCGGCATGAACCGGAGGCCCATCCTCACCATCATCACTGGAAGACTCCAGTGGTAATCTACTGGGAC
GGAACAGCTTTGAGGTGCGTGTGTGTGCTGTCTGGGAGAGACCGGCGCACAGAGGAAGAGAATCTCCGCAAGA
AAGGGGAGCCTCACCACGAGCTGCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCC
AGCCAAAGAAGAAACCACTGGATGGAGAATATTTCACCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCC
GAGAGCTGAATGAGGCCCTTGGAACTCAAGGATGCCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCA
GCCACCTGAAGTCCAAAAAGGGTCAGTCTACCTCCCGCCATAAAAAACTCATGTTCAAGACAGAAGGGCCTGACT
CAGACTGACATTTCTCCACTTCTTGTTCCTCCCACTGACAGCCTCCCAACCCCATCTCTCCCTCCCTGCCATTTTGG
GTTTTGGGTCTTTGAACCTTGCTTGCAATAGGTGTGCGTCAGAAGCACCCAGGACTTCCATTTGCTTTGTCCCG
GGGCTCCACTGAACAAGTTGGCCTGCACTGGTGTGTGTGTGGGAGGAGGATGGGGAGTAGGACATACCAGCT
TAGATTTTAAGGTTTTTACTGTGAGGGATGTTTGGGAGATGTAAGAAATGTTCTTGCAAGTTAAGGGTTAGTTTAC
AATCAGCCACATTCTAGGTAGGGGCCCACTTCACCGTACTAACCAGGGAAGCTGTCCCTCACTGTTGAATTTTCT
CTAACTTCAAGGCCCATATCTGTGAAATGCTGGCATTGTCACCTACCTCACAGAGTGCATTGTGAGGGTTAATGA
AATAATGTACATCTGGCCTTGAAACCACTTTTTATTACATGGGGTCTAGAAGTTGACCCCTTGAGGGTGCTTGT
TCCCTCTCCCTGTTGGTTCGGTGGGTTGGTAGTTTCTACAGTTGGGCAGCTGGTTAGGTAGAGGGAGTTGTCAAGT
CTCTGCTGGCCAGCCAAACCTGTCTGACAACCTCTTGGTGAACCTTAGTACCTAAAAGGAAATCTCACCCCAT
CCCACACCTGGAGGATTTTCACTCTTGTATATGATGATCTGGATCCACCAAGACTTGTTTTATGCTCAGGGTCA
ATTTCTTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTTGTTGCCAGGCTGGAGT
GGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCGGCTCGAGCAGTCCTGCCTCAGCCTCCGGAGTAG
CTGGGACCACAGGTTCAAGCCATGGCCAGCCAACCTTTTGCATGTTTTGTAGAGATGGGGTCTCACAGTGTG
CCCAGGCTGGTCTCAAACTCCTGGGCTCAGGCGATCCACCTGTCTCAGCCTCCAGAGTGTGGGATTACAATTG
TGAGCCACCACGTCCAGCTGGAAGGGTCAACATCTTTTACATTCTGCAAGCACATCTGCATTTTACCCCAACCT
TCCCTCCTTCTCCCTTTTTATATCCCATTTTTATATCGATCTCTTATTTTACAATAAACTTTGCTGCCA

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FIGURE 4694

AGTGCTTTCAAAAGAATTGGCGTCCGCTGTTCGCCTCTCCTCCCGGGAGTCTTCTGCCTACTCCCAGAAGAGGAG
GGAAGCACAXGGXTXGGGTTTTCTTTAGCTCTGCGTCCGGATCCCTGAGAACTTCGXAXAGXCCATCCTGGCTGAGG
CTAATCTCCGCTGTGCTTCTCTGCAGTATGAAGACTTTGGAGACTCAACCGTTAGCTCCGGACTGCTGTCTCTC
AGACCAGGACCCAGCTCCAGCCCATCCTTCTCCCCACGCTTCCCCGATGAATAAAAAATGCGGACTCTGAACTGAT
GCCACCGCTCCCCGAAAGGGGGGATCCGCCCCGGTTGTCCCCAGATCCTGTGGCTGGCTCAGCTGTGTCCCAGGA
GCTACGGGAGGGGGACCCAGTTTCTCTCTCCACTCCCCTGGAAACAGAGTTTGGTTCCCCCTAGTGAGTTGAGTCC
TCGAATCGAGGAGCAAGAACTTTCTGAAAATACAAGCCTTCTGTCAGAAAGCAAACGGGAGCCTTTCTGAAGA
AGAAGCGAACGGGCCAGAGTTGGGGTCTGGAAAAGCCATGGAAGATACCTCTGGGGAACCCGCTGCAGAGGACGA
GGGAGACACCGCTTGGAACCTACAGCTTCTCCAGCTGCCTCGATTTCTCAGTGGTTTCTGGTCAGAGTTCAGCAC
CCAACCTGAGAACTTCTTGAAAGGCTGTAAGTGGGCTCCTGACGGTTCTGTCATCTTGACCAATAGTGCTGATAA
CATCTTGCGAATTTATAACCTGCCCCAGAGCTGTACCATGAGGGGGAGCAGGTGGAATATGCAGAAATGGTCCC
TGTCTTTCGAATGGTGGAAGGTGATACCATCTATGATTACTGCTGGTATTCTCTGATGTCTCTCAGCCCAGCCAGA
CACCTCCTACGTGGCCAGCAGCAGCCGGGAGAACCCGATTTCATATCTGGGACGCATTCACTGGAGAGCTCCGGGC
TTCCTTTCGCGCCTACAACCACCTGGATGAGCTGACGGCAGCCCATTCGCTCTGCTTCTCCCCGGATGGCTCCCA
GCTCTTCTGTGGCTTCAACCGGACTGTGCGTGTTTTTTCCACGGCCCCGGCTGGCCGAGACTGCGAGGTCCGAGC
CACATTTGCAAAAAAGCAGGGCCAGAGCGGCATCATCTCCTGCATAGCCTTCAGCCCAGCCCAGCCCCCTCTATGC
CTGTGGCTCCTACGGCCGCTCCCTGGGTCTGTATGCCTGGGATGATGGCTCCCCTCTCGCCTTGCTGGGAGGGCA
CCAAGGGGGCATCACCCACCTCTGCTTTCATCCCGATGGCAACCGCTTCTTCTCAGGAGCCCGCAAGGATGCTGA
GCTCCTGTGCTGGGATCTCCGGCAGTCTGGTTACCCACTGTGGTCCCTGGGTGAGAGGTGACCACCAATCAGCG
CATCTACTTCGATCTGGACCCGACCGGGCAGTTCTAGTGAGTGGCAGCACGAGCGGGGCTGTCTCTGTGTGGGA
CACGGACGGGCTGGCAATGATGGGAAGCCGGAGCCCGTGTTGAGTTTTCTGCCCCAGAAGGACTGCACCAATGG
CGTGAGCCTGCACCCTAGCCTGCCTCTCCTGGCCACTGCCTCCGGTCAGCGTGTGTTTCTGAGCCCACAGAGAG
TGGGGACGAAGGAGAGGAGCTGGGCCTTCCCTTGCTCTCCACGCGCCACGTCCACCTTGAATGTGGCTTCAGCT
CTGGTGGTGTGGGGGGGCCAGACTCCAGCATCCCTGATGATCACCAGGGCGAGAAAGGGCAGGGAGGAACGGA
GGGAGGTGTGGGTGAGCTGATATAAAAAGGTTTTTATGAT

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FIGURE 4695

ACTTGTCATGGCGACTGTCCAGCTTTGTGCCAGGAGCCTCGCAGGGGTTGATGGGATTGGGGTTTTCCCCTCCCA
TGTGCTCAAGACTGGCGCTAAAAAGTTTTGAGCTTCTCAAAAGTCTAGAGCCACCGTCCAGGGAGCAGGTAGCTGC
TGGGCTCCGGGGACACTTTGCGTTCGGGCTGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCA
GCCAGACTGCCTTCCGGGTCACTGCCATGGAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGG
AAACATTTTCAGACCTATGGAACTACTTCTTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATG
ATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAGAATGC
CAGAGGCTGCTCCCCCGTGGCCCCTGCACCAGCAGCTCCTACACCGGCGGGCCCCCTGCACCAGCCCCCTCCTGGC
CCCTGTCTCTTCTGTCCCCCTCCAGAAAACTACCAGGGCAGCTACGGTTTTCCGTCTGGGCTTCTTGCATTCTG
GGACAGCCAAGTCTGTGACTTGCACGTACTCCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACCTGCC
CTGTGCAGCTGTGGGTTGATTCCACACCCCCGCCCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAC
AGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTC
AGCATCTTATCCGAGTGGAAAGGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGG
TGGTGCCCTATGAGCCGCCCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACATACATGTGTAACAGTTCTT
GCATGGGCGGCATGAACCGGAGGCCCCATCCTACCATCATCACACTGGAAGACTCCAGTGGTAATCTACTGGGAC
GGAACAGCTTTGAGGTGCGTGTTTGTGCTGTCTGGGAGAGACCGGCGCACAGAGGAAGAGAATCTCCGCAAGA
AAGGGGAGCCTCACCACGAGCTGCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCC
AGCCAAAGAAGAAACCCTGGATGGAGAATATTTACCCCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCC
GAGAGCTGAATGAGGCCCTTGAACTCAAGGATGCCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCA
GCCACCTGAAGTCCAAAAAGGTCAGTCTACCTCCCGCCATAAAAACTCATGTTCAAGACAGAAGGGCCTGACT
CAGACTGACATTCTCCACTTCTTGTTCCTCACTGACAGCCTCCCACCCCCATCTCTCCCTCCCCCTGCCATTTTGG
GTTTTGGGTCTTTGAACCTTGCTTGCAATAGGTGTGCGTCAGAAGCACCCAGGACTTCCATTTGCTTTGTCCCG
GGGCTCCACTGAACAAGTTGGCTGCACTGGTGTTTTGTGTGGGAGGAGGATGGGGAGTAGGACATACCAGCT
TAGATTTTAAGGTTTTTACTGTGAGGGATGTTTGGGAGATGTAAGAAATGTTCTTGCAAGTTAAGGGTTAGTTTAC
AATCAGCCACATTCTAGGTAGGGGCCACTTCACCGTACTAACCAGGAAGCTGTCCCTCACTGTTGAATTTTCT
CTAACTTCAAGGCCCATATCTGTGAAATGCTGGCATTTCACCTACCTCACAGAGTGCATTGTGAGGGTTAATGA
AATAATGTACATCTGGCCTTGAAACCACCTTTTATTACATGGGGTCTAGAACTTGACCCCTTGAGGGTGCTTGT
TCCCTCCTCTGTTGGTCGGTGGGTGGTAGTTTCTACAGTTGGGCAGCTGGTTAGGTAGAGGGAGTTGTCAAGT
CTCTGCTGGCCCAGCCAAACCTGTCTGACAACCTCTTGGTGAACCTTAGTACCTAAAAGGAAATCTCACCCCAT
CCCACACCTGGAGGATTTTATCTCTTGTATATGATGATCTGGATCCACCAAGACTTGTTTTATGCTCAGGGTCA
ATTTCTTTTTCTTTTTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTTGTTGCCAGGCTGGAGT
GGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCCGGCTCGAGCAGTCTGCCTCAGCCTCCGAGTAG
CTGGGACCACAGGTTTCATGCCACCATGGCCAGCCAACCTTTTGCATGTTTTGTAGAGATGGGGTCTCACAGTGTTG
CCCAGGCTGGTCTCAAACCTCCGGGCTCAGGCGATCCACCTGTCTCAGCCTCCCAGAGTGCTGGGATTACAATTG
TGAGCCACCACGTCCAGCTGGAAGGGTCAACATCTTTTACATTCTGCAAGCACATCTGCATTTTACCCCAACCT
TCCCCCTCTCTCCCTTTTTATATCCCATTTTTATATCGATCTCTTATTTTACAATAAACTTTGCTGCCA

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FIGURE 4696

GCCGCTGAGAAAGCGCAGAGAAGGCGGGCCCCGTCTGAGGTCTGGCAGTCAGAGACAGCCGGGCGCCACGGCCC
GAGCGCCACGGCAGCACCATGCCCCGACTCCTGGAGCGCCCCAAGCTTTCCAACGCCATGGCCAGGGCGCTGCA
CCGGCACATTATGATGGAGCGGGAGCGCAAGCGGCAGGAGGAAGAAGAGGTGGATAAGATGATGGAACAGAAGAT
GAAGGAAGAACAGGAGAGAAGGAAGAAAAAGGAGATGGAAGAGAGAATGTCATTAGAGGAGACCAAGGAACAAAT
TCTGAAGTTGGAGGAGAAGCTTTTGGCTCTACAGGAAGAGAAGCACCAGCTTTTCCTGCAGCTCAAGAAAGTTTT
ACATGAGGAAGAAAAACGGAGGCGAAAGGAACAGAGTGACCTGACCACCCTAACATCAGCTGCATACCAGCAGAG
CCTGACTGTTTACACAGGAACTCATCTCCTCAGCATGCAGGGGAGCCCTGGAGGACACAATCGCCCAGGCACCCT
CATGGCAGCTGACAGAGCCAAACAAATGTTTGGACCCCAAGTGCTTACGACCCGGCACTACGTGGGCTCAGCAGC
TGCTTTTGCAGGGACACCAGAGCATGGACAATTCCAAGGCAGTCCTGGTGGTGCCTATGGGACTGCTCAGCCCCC
ACCTCACTATGGGCCCCACACAGCCAGCTTATAGTCCTAGTCAGCAGCTCAGAGCTCCTTCGGCATTCCCTGCAGT
GCAGTACCTATCTCAGCCACAGCCACAGCCCTATGCTGTGCATGGCCACTTTCAGCCCACTCAGACAGGTTTCCT
CCAGCCTGGTGGTGCCTGTCTTGCAAAAGCAGATGGAACATGCTAACCAGCAGACTGGCTTCTCCGACTCATC
CTCTCTGCGCCCCATGCACCCCCAGGCTCTGCATCCAGCCCCTGGACTCCTTGCTTCCCCCAGCTCCCTGTGCA
GATGCAGCCAGCAGGAAAGTCGGGCTTTGCAGCTACCAGCCAACCTGGCCCTCGGCTCCCCTTCATCCAACACAG
CCAGAACCCGCGATTCTACCACAAGTGACCATCAGATTATATCTTCAACACCACACCCCCCACCCTATCGTGGGT
GAGGGTATCCCCTGTGTGTCCAGGCCAATAAAATCTACCTGCCA

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FIGURE 4698

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS
THNMDVPNIKRNDQFLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEA AVAIK
AMAK

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FIGURE 4699

GGCCGGGAGAGTAGCAGTGCCCTTGGACCCAGCTCTCCTCCCCCTTTCTCTCTAAGGAATGCCCCAGAAGGAGAAC
TCCTACCCCTGGCCCTACGGCCGACAGACGGCTCCATCTGGCCTGAGCACCCCTGCCCCAGCGAGTCCTCCGGAAA
GAGCCTGTCACCCCATCTGCACTTGTCTCATGAGCCGCTCCAATGTCCAGCCCACAGCTGCCCCCTGGCCAGAAG
GTGATGGAGAAATAGCAGTGGGACACCCGACATCTTAACGCGGCACTTCACAATTGATGACTTTGAGATTGGGCGT
CCTCTGGGCAAAGGCAAGTTTGGAAACGTGTACTTGGCTCGGGAGAAGAAAAGCCATTTTCATCGTGGCGCTCAAG
GTCCTCTTCAAGTCCCAGATAGAGAAGGAGGGCGTGGAGCATCAGCTGCGCAGAGAGATCGAAATCCAGGCCAC
CTGCACCATCCCAACATCCTGCGTCTCTACAACATTTTTATGACCGGAGGAGGATCTACTTGATTCTAGAGTAT
GCCCCCGCGGGGAGCTCTACAAGGAGCTGCAGAAGAGCTGCACATTTGACGAGCAGCGAACAGCCACGATCATG
GAGGAGTTGGCAGATGCTCTAATGTACTGCCATGGGAAGAAGGTGATTACAGAGACATAAAGCCAGAAAATCTG
CTCTTAGGGCTCAAGGGAGAGCTGAAGATTGCTGACTTCGGCTGGTCTGTGCATGCGCCCTCCCTGAGGAGGAAG
ACAATGTGTGGCACCCCTGGACTACCTGCCCCAGAGATGATTGAGGGGCGCATGCACAATGAGAAGGTGGATCTG
TGGTGCAATTGAGTGCTTTGCTATGAGCTGCTGGTGGGGAACCCACCCTTTGAGAGTGATCACACAACGAGACC
TATCGCCGCATCGTCAAGGTGGACCTAAAGTTCCCCGCTTCTGTGCCCACGGGAGCCCAGGACCTCATCTCCAAA
CTGCTCAGGCATAACCCCTCGGAACGGCTGCCCCTGGCCCAGGTCTCAGCCCACCCTTGGGTCCGGGCCAACTCT
CGGAGGGTGCTGCCTCCCTCTGCCCTTCAATCTGTGCGCTTGATGGTCCCTGTTCATTCACTCGGGTGCGTGTGTTT
GTATGTCTGTGTATGTATAGGGGAAAGAAGGGATCCCTAACTGTTCCCTTATCTGTTTTCTACCTCCTCCTTTGT
TTAATAAAGGCTGAAGCTTTTTGT

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FIGURE 4700

MAQKENSYPWPYGRQTAPSGLSTLPQRVLRKEPVTPSALVLMRSRNVQPTAAPGQKVMENSSGTPDILTRHFTID
DFEIGRPLGKGKFGNVYLAREKKSHFIVALKVLFKSQIEKEGVEHQLRREIEIQAHLHHPNILRLYNYFYDRRRI
YLILEYAPRGELYKELQKSCTFDEQRTATIMEELADALMYCHGKKVIHRDIKPENLLLGLKGELKIADFGWSVHA
PSLRKTMCGTLDYLPPEMIEGRMHNEKVLDWCIGVLCYELLVGNPPFESASHNETYRRIVKVDLKFPASVPTGA
QDLISKLLRHNP SERLP LAQVSAHPWVRANSRRVLPPSALQSV

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FIGURE 4701

AGATGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCACGTGCTACAGACCTGGCATCCCTTCCTCCCCAAGT
TCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTGGTGGGGCCCTGCTGGACCTGTGGCTGTGGCACAG
ACACCAACTTTGAGGTGAAGACTCGGGATGAATCCCGCAGTGTGGGCCGCATCAGCAAGCAGTGGGGGGGCTGG
TCCGAGAAGCCCTCACAGATGCAGATGACTTTGGCCTACAGTTCCCGCTGGACCTGGATGTGAGGGTGAAGGCTG
TGCTGCTGGGAGCCACATTCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCGCTGGGCCCTCTGCCGTCA
CCAGTTAGAGGCCACCATGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACCTGCCCTGGCCCC
TCCTCTGGGCAGCCCCCTTTCTCCATGTACACTGCAGGGGACAGAAGGGGGGCCCATCCCTACCCTACTCCCTG
GCCGCTGCCCCCTGTGGTTCCCAAGGAGGGGTATGTATGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCCA
GCAGTCCCTCGGCACACAGGCATATCAGCTTTCACACTTTCCCATGCACTCTCTCCACCCCCCTCCAGGGCCT
CTGCTCCAAAGGAGGCCTCTGGAACCCAGGACTCTGGGGTTTTACAAGAGGGCTGGGGTGTGGAAGGGCAAGCTG
CACCAAAGACGGTGGATATAGCCACCGCCCCCGCCGCTGCCTAGCATCTGCTTGGCCAATTAGTTCAGCCTCA
GACCATGGCACTTTGAGGGGTCTCTACCTCCCCATCAACAGCTGCAGGGGGACCCAGTGCCAACTTCCTCTCC
CACTAGGGCCCTGCCITTCAGCTGGTGCTTGCTGCGATTCTGTGCCTTATGTAAGTGGCCTTCCTTCCTTGCCC
TAGGAAAAAGGCTGCATCTTTATATGTTACATTCATATAAACTTTGTAACTTTTTG

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FIGURE 4702

MEVQAPP GTTIGHVLQ TWHF LPKFS IQDADRQ TVLRVVG PCWTCGCGTDTNF EVKTRDESRSVGRISKQWGGLV
REALTDADDFGLQFPLDLDVRVKAVLLGATFLIDYMF FEKRGGAGPSAVTS

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FIGURE 4703

GCTCCGCTGAATCCGCCCGCGCGTCGCCGCCGTCGTCGCCGCCCCCGTCCCGGCCCCCTGGGTTCCCTCAGCC
CAGCCCTGTCCAGCCCGGTTCCCGGGAGGATGAAGTTCGTGTACAAAGAAGAGCATCCGTTGAGAAGCGCCGCT
CTGAGGGCGAGAAGATCCGAAAGAAATACCCGGACCGGGTGCCGGTGATAGTAGAAAAGGCTCCCAAAGCTCGGA
TAGGAGACCTGGACAAAAAGAAATACCTGGTGCCTTCTGATCTCACAGTTGGTCAGTTCTACTTCTTGATCCGGA
AGCGAATTCATCTCCGAGCTGAGGATGCCTTGTTTTCTTTGTCAACAATGTCATTCCACCCACCAAGTGCCACAA
TGGGTCAGCTGTACCAGGAACACCATGAAGAAGACTTCTTTCTCTACATTGCCTACAGTGACGAAAGTGTCTACG
GTCTGTGAAGCTGCTGCCCCCTGAGCTGGAGGGGGGTCTCATTCTACAAAGAGAGAGGTGGCCCCCTTTCTTGAC
CTCCTCCTCCTTCAAGCTCAAACACCACCTCCCTTATTCAGGACCGGCATTCTTAATGTTTGTGGCTTTCTCTC
CAGCCTCTCTTAGGAGGGGTAATGGTGGAGTTGGCATCTTGTAACCTCTCCTTTCTCCTTTCTTCCCCTTTCTCTG
CCCGCCTTTCCCATCCTGCTGTAGACTTCTTGATTGTCAGTCTGTGTACATCCAGTGATTGTTTTGGTTTCTGT
TCCCTTTCTGACTGCCCAAGGGGCTCAGAACCCAGCAATCCCTTCCTTTCACTACCTTCTTTTTTGGGGGTAGT
TGGAAGGGACTGAAATTGTGGGGGAAGGTAGGAGGCACATCAATAAAGAGGAAACCACCAAGCTG

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FIGURE 4704

GAGACCATGGCGGGTAGCAGCACTGGGGGCGGTGGGGTTGGGGAGACGAAGGTGATTTACCACCTGGATGAGGAA
GAGACTCCCTACCTGGTGAAGATCCCTGTCCCCGCCGAGCGCATCACCCTCGGCGATTTCAAGAGCGTCCTGCAG
CGGCCCCGCGGGCGCCAAGTACTTTTTCAAGTCTATGGATCAGGATTTTCGGGGTGGTGAAGGAAGAAATTTTCAGAT
GACAAAGCCCCGCTCCCTGCTTCAACGGAAGGGTGGTATCCTGGCTGGTGTCTCTAGATAATCCCCAACCCGAG
ATGGCCCCCTCCAGTCCATGAGCCTCGGGCAGAACTGGCGCCTCCAGCCCCACCTTTACCTCCTTTGCCACCCGAG
AGGACCAGCGGCATTGGGGACTCAAGGCCCTCCATCCTTCCACCCTAATGTGTCCAGCAGCCATGAGAATCTGGAG
CCTGAGACAGAAACCGAGTCAGTAGTGTCACTGAGGCGGGAGCGGCCTCGCAGGAGAGACAGCAGTGAGCATGGC
GCTGGGGGCCACAGGACTGGTGGCCCCCAAGGCTGGAGCGCCACCTGGCCGGATACGAGAGCTCCTCTACCCCTC
ATGACCAGCGAGCTGGAGAGTACCAGCCTGGGGGACTCGGACGAGGAGGACACCATGAGCAGGTTTCAGCAGCTCC
ACGGAGCAGAGCAGTGCCTCCCGCCTCCTTAAGCGCCACCGGCGGCGAAGGAAGCAGAGGCCACCCCGCCTGGAG
AGGACGTATCCTTCAGCAGCGTCACAGATTCCACAATGTCTCTCAATATCATCACAGTACGCTAAACATGGAG
AAGTACAATCTCTGGGTATCTCCATTGTTGGCCAGAGCAATGAGCGGGGAGACGGAGGCATCTACATTGGCTCC
ATCATGAAGGGTGGGGCTGTGGCGGCCGACGGGCGCATTGAGCCAGGGGACATGCTTTTGCAGGTGAATGACATG
AACTTTGAGAACATGAGCAACGATGACGCTGTGCGGGTGTGAGGGACATTGTGCACAAGCCTGGCCCCATTGTG
CTGACTGTGGCCAAGTGCTGGGATCCCTCTCCTCAGGCCTATTTCACTCTCCCCCGAAATGAGCCCATCCAGCCA
ATTGACCCTGCTGCCTGGGTGTCCCATTCGCGGCTCTGACTGGCACCTTCCCAGCCTATCCAGGTTCTCTCCTCC
ATGAGCACCATTACATCTGGATCGTCTTTGCCTGATGGCTGTGAAGGCCGGGGTCTCTCCGTCCATACGGACATG
GCATCGGTGACCAAGGCCATGGCAGCTCCAGAGTCTGGACTGGAAGTCCGGGACCGCATGTGGCTCAAGATCACC
ATCCCTAATGCCTTTCTGGGCTCGGATGTGGTTGACTGGCTCTACCATCACGTGGAGGGCTTTCTTGAGCGGCGG
GAGGCCCCGCAAGTATGCCAGCGGGCTGCTCAAAGCAGGCCTGATCCGACACACCGTCAACAAGATCACCTTCTCT
GAGCAGTGCTATTACGTCTTCGGAGACCTCAGTGGTGGCTGTGAGAGCTACCTAGTCAACCTGTCTCTCAATGAC
AACGATGGCTCCAGTGGGGCTTCAGACCAGGATACCCTGGCTCCTCTGCCTGGGGCCACCCCTGGCCCCCTGCTG
CCCCTTTCTCCTACCAATACCCTGCCCCACACCCCTACAGCCCGCAGCCTCCACCCTACCATGAGCTTTCATCT
TACACCTATGGTGGGGGCGAGTGCCAGCAGCCAGCATAGTGAGGGCAGCCGGAGCAGTGGGTGACACGGAGTGAT
GGGGGGGCGAGGGCGCACGGGGAGGCCCCGAGGAGCGGGCCCCGAGTCCAAGTCCGGCAGTGGCAGTGAGTCTGAG
CCCTCCAGCCGAGGGGGCAGCCTTCGGCGGGGTGGGGAAGCAAGTGGGACTAGCGATGGGGGCCCTCCTCCATCC
AGAGGCTCAACTGGGGGTGCCCTAATCTCCGAGCCACCCAGGGCTCCATCCCTATGGACCGCCCCCTGGCATG
GCCCTCCCCTACAACCCCATGATGGTGGTCATGATGCCCCACCTCCACCTCCAGTCCCTCCAGCAGTGCAGCCT
CCGGGGGCCCCCTCCAGTCAGAGACCTGGGCTCTGTGCCCCAGAACTGACAGCCAGCCGCCAAAGCTTCACATG
GCCATGGGCAATCCCAGCGAGTTCTTTGTGGATGTTATGTAGCCCACTGTGGGGCCAGGCTGGGCCGGGCGCTCC
TGGTGTGTGACTGGGTGTCTGGCCGTATGTGCTTGTCTTACAGTGCCTGGGCTCAGCCTACCAGCTGCTGCC
ATACAGGAGATTGTGGCCACTGTGACTCTCACCAGCAGTGCCTGGTTCTCCCCCTTCCCTCAGGGGTAGACAAG
GGACCTTTGATTATTTTGTGCTTTGTTTTTTATAAGCCTTTTTGGGGGTAAATAGAGTTTCTTACATTTTG
GGACTTTTTTAATAGGCATTTCTCTTTT

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FIGURE 4705

MAGSSTGGGGVGETKVIYHLDEEETPYLVKIPVPAERITLGDFKSVLQRPAGAKYFFKSMDQDFGVVKEEISDDN
ARLPCFNGRVVS WLVSDDNPQPEMAPPVHEPRAELAPPAPPLPPLPERTSGIGDSRPPSFHPNVSSSHENLEPE
TETESVVS LRRERPRRRDSSEHGAGGHRTGGPSRLERHLAGYESSSTLMTSELESTSLGDSDEEDTMSRFSSTE
QSSASRLLKRHHRRRRKQRPRLERTSSFSVTDSTMSLNIITVTLNMEKYNFLGISIVGQSNERGDGGIYIGSIM
KGGAVAADGRIE PGDMLLQVNDMNFENMSNDDAVRVL RDIVHKPGPIVLT VAKCWDPS PQAYFTLPRNEPIQP ID
PAAWVSHSAALTGTFPAYPGSSSMSTITSGSSLPDGCEGRGLSVHTDMASVTKAMAAPESGLEVRDRMWLKITIP
NAFLGSDVDWLYHHVEGFPERREARKYASGLLKAGLIRHTVNKITFSEQCYVFGDLSGGCESYLVNLSLNDND
GSSGASDQDTLAPLP GATPWPLLP TFSYQYPAPHPYSPQPPPYHELSSYTYGGGSASSQHSEGSRSSGSTRSDGG
AGRTGRPEERAPESKSGSGSESEPSSRGGSLRRGGEASGTSDGGPPPSRGSTGGAPNLR AHPGLHPYGP PPGMAL
PYNPMMVMMPPPPPPVPPAVQPPGAPPVRDLG SVPELTASRQSFHMAMGNPSEFFVDVM

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FIGURE 4706

GGGCCAGCGCGGCCCCGGGCCGCCCTCGCCTCCCACCCAGGGCGCTGAGCACGCACGCCGCCGGCCTGGCGGCGTT
CGCGGGGGCCCCGGGACCAGCCGCCGCCTTCTCCAGGCGCTCCTACTCTCTGGGCATCTGCAGTCCGAGCGGAAGGG
GCGGGAACGTGCGCGACGCCGAGGAGCAAAGCCCACGATCGGCTTCCCAGGGCAGCGGACGGCTGCCTTCCTCCC
GGCGCAAACGCACCGCCCAGGAGGGGGCGGGCTCGGCGGGTTCGGGGGGCGGGGCCGGGGTCCGAGCTCGGGCCCCG
CCTCCGCCTCCGCCAGCTCCTGTGAGCTGCCGAGTGCTAGGCACCCGGGCTCTTCTGGGGGGCTCCAGAACTAAGC
CACCCAGACACCATCATCTCGAAAACCCAGCCCTTCTCCCATGGCAGGCTACTTGCCCCCAAAGGCTACGCCC
CTTCGCCCCACCTCCCTACCCTGTACCCCTGGGTACCCGGAGCCGGCGCTACATCCTGGGCCCCGGGCAGGCGC
CAGTGCCCGCCAGGTACCTGCCCCAGCTCCCGGCTTCGCCCTCTTCCCCTCGCCTGGCCCCGTGGCCTTGGGGT
CTGCTGCCCCCTTCTTGCCACTGCCAGGGGTGCCTTCTGGCCTCGAATTCTGGTGCAGATTGATCAGATTTTGA
TTCACCAGAAGGCTGAGCGAGTGGAACGTTCTAGGCTGGGAGACCTGTAATCGGTATGAAGTGCCTCTGGGG
CCGGGCAGCCCCCTGGGTACGGCGGCCGAGGAGAGCAACTGCTGCGCCCGTCTGTGCTGTGGCGCCCGCCGGCCGC
TGCGTGTCCGCCTGGCCGACCCCGGGGACCGTGAGGTGCTGCGTTTGCTCCGCCCGCTGCACTGTGGCTGCAGCT
GCTGCCCCCTGTGGCCTCCAGGAGATGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCACGTGCTACAGACCT
GGCATCCCTTCCTCCCCAAGTTCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTGGTGGGGCCCTGCT
GGACCTGTGGCTGTGGCACAGACACCAAC

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FIGURE 4707

AGTTGGAATCGAAGCCTCTTAAAAATGGCAGATGACTTGGAAGCTTCGAGACAGGAGATGCAGGGGCCTCAGCCACCT
TCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGTGGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGA
TGCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGTCCATCTGGTTGGTATTGACATCTTTACTGGGAAGA
AATATGAAGATATCTGCCCCGTCAACTCATAATATGGATGTCCCCAACATCAAAGGAATGACTTCCAGCTGATTG
GCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGGGGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAG
ACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGAAGAGATCCTGATCACGGTGCTGTCTGCCATGACAG
AGGAGGCAGCTGTTGCAATCAAGGCCATGGCAAAATAACTGGCTCCCAGGGTGGCGGTGGTGGCAGCAGTGATCC
TCTGAACCTGCAG

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FIGURE 4708

GGCCCCCCCCCCCCCTAGAAATGCTCGAACCAGGACGGCTCCTGGAGTCCTCGCGCCCTCGCAGAAGGACTACGG
GCCCCGGCGACCCCGGGGGCGGGGCTTCCGGCGCGCTGCCTTGTGGGCACGGTAGTTCCGCCGGGTCTGGCTTCC
GCCTGCCGAGCGGCCCCGGACCGCAGGCCGGACTACACTTCCCGTCGGCCCGCCTGCTCTCCCGATGCCGCCTTG
GCGCGAGACGTTGGCAAGCAGAGTGTCTCCAAGATGCGCGCTTGGGGAAGGAGGCGTCTTGGCCCCGGGCAGCAGT
GGCGGCAGCGCCCGAGAGAGGGTGAGCTTGTTCGGCCACAGACTGCTACATTGTGCATGAGATCTACAATGGGGAG
AATGCCCAAGACCAGTTTGAGTACGAGCTGGAGCAGGCCCTGGAAGCCCAGTACAAGTACATTGTGATTGAGCCC
ACTCGCATTGGCGACGAGACAGCCCGCTGGATCACCGTGGGCAACTGCCTGCACAAGACGGCCGTGCTGGCGGGC
ACCGCTGCCTCTTCACCCCGTTGGCGCTGCCCTTAGATTATTTCCCACTACATTTCCCTGCCCGCTGGTGTGCTG
AGCCTGGCCTGCTGCACCCCTCTATGGGATCTCCTGGCAGTTTGACCCTTGCTGCAAGTACCAAGTGGAGTACGAC
GCCTATAAACTGTTCGCGCCTGCCTCTGCACACACTCACCTCCTCCACCCCGGTGGTGTGCTGGTCCGGAAGGACGAC
CTGCACAGAAAGAGACTGCACAACACGATAGCACTGGCCGCCCTGGTGTACTGTGTAAAGAAGATTTACGAACCTC
TATGCCGTATGATTTTCAGTAGAACAGGGAGCGAAGCAAAACCCCGGCCACAAAGAGACAACAGAGTATTCAGA
TCGCCACACTCTGTGAGGCAGCAGAGCCTGGGCAGGTGTTTGGCTTAGTATTTGTTATTTTTAAAAATAACAGA
TCACGGGTGTACCCAGGGTTTTTCAGCTCATTACACTAAGATGTGGATTTCCATAACCCAAGAGGGGGGTCTGAG
GCTGTGGAAGTCCGACTGGGCAGTGGAATGCTGATGGAGGCAGACGCTGCCGAGGGGGTGTGGACGTGCTTTGGG
GGAGGTCTTTAAGTCTATTGTTTAACTGTACCATCCAGAGCCCACCAGAAGCTATTGATCATTAAATTATGAGA
ATTTCAACTCC

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FIGURE 4709

MAAWGRRRLGPGSSGGSARERVSLSATDCYIVHEIYNGENAQDQFEYELEQALEAQYKYIVIEPTRIGDETARWI
TVGNCLHKTAVLAGTACLFTPLALPLDYSHYISLPAGVLSLACCTLYGISWQFDPCKYQVEYDAYKLSRLPLHT
LTSSTPVVLVRKDDLHRKRLHNTIALAALVYCVKKIYELYAV

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FIGURE 4710A

AGGCCAAGTCCTGTATCTGCCATGTCTGTGGCGTCCACCTCAACAGGCTGCATTCCCTGCCTCTACTGTGTCTTCT
TCGGCTGTTTCACAAAGAAGCATATTACGAGCATGCGAAGGCGAAGCGGCACAACCTGGCCATTGATCTGATGT
ACGGAGGCATCTACTGTTTTCTGTGCCAGGACTACATCTATGACAAAGACATGGAAATAATCGCCAAGGAGGAGC
AGCGAAAAGCTTGGAAAATGCAAGGCGTTGGAGAGAAGTTTTCAACTTGGGAACCAACCAACGGGAGCTTGAAC
TGCTGAAGCACAAACCCGAAAAGGAGAAAGATCACCTCGAACTGCACCATAGGTCTGCGTGGGCTGATCAACCTTG
GGAACACATGCTTCATGAACTGCATCGTGAGGCGCTGACCCACACGCCACTTCTGCGGGACTTCTTCTGTCTG
ACAGGCACCGCTGTGAGATGCAGAGCCCCAGCTCCTGTCTGGTCTGTGAGATGTCCTCACTGTTTCAGGAGTTTT
ACTCTGGACACCGGTCCCCTCACATCCCGTATAAGTTGCTGCACCTGGTGTGGACCCACGCGAGGCACCTAGCAG
GCTACGAGCAGCAGGACGCCCACGAGTTCCCTCATCGCGGCCCTGGACGTGCTCCACCGACACTGCAAAGGTGATG
ACAATGGGAAGAAGGCCAACAAACCCCAACCACTGCAACTGCATCATAGACCAGATCTTACAGGCGGGTTCAGT
CAGACGTCACTGCCAAGTCTGCCATGGAGTCTCCACCACCATCGACCCCTTCTGGGACATCAGCTTGGATCTCC
CCGGCTCTTCCACCCCATTTCTGGCCCTGAGCCAGGGAGCGAGGGCAACGTGGTAAACGGGGAAAGCCACGTGT
CGGGAACCAACACGCTCACGGACTGCCTGCGACGATTACCAGACCAGAGCACTTGGGCAGCAGCGCCAAGATCA
AGTGCAGCGGTTGCCATAGCTACCAGGAGTCCACAAAGCAGCTCACTATGAAGAACTGCCCATCGTAGCCTGTT
TTCATCTCAAACGATTTGAACACTCAGCCAAGCTGCGGCGGAAGATCACCACGTATGTGTCTTCCCCCTGGAGC
TGGACATGACCCCTTTCATGGCCTCCAGCAAAGAGAGCAGGATGAATGGACAGTACCAGCAGCCCCAGGACAGTC
TCAACAATGACAACAAGTATTCCTGTGTTGCTGTTGTTAACCATCAAGGGACCTTGGAGAGTGGCCACTACACCA
GCTTTATCCGGCAGCACAAAGACCAGTGGTTCAAGTGTGACGATGCCATCATCACCAGGCCAGCATCAAGGACG
TCCTGGACAGCGAAGGGTACTTGTCTGTTCTATCACAACAGTTCCTGGAATACGAGTAGCCTTATCTGCAGCTGG
TCAGAAAAACAAAGGCAATGCATTGGCAAGCCTCACAAAGTGATCCTCCCTGGCCCCCCCCCTCCCCCAAGTCTCC
CGCCGCTCCCCGGCCTGGTGACACCACCTCCCATGCAGATGTGGCCCTCTGCACCTGGGACCCATCGGGTCCG
GATGGACCAACCGGAGGGGAGGCTCCTGGAGCTGCTTTGAAGATGGATGAGATGAGGGGTGTGCTCTGGGTGGG
AGGAGCAGCGTACACCCGTACCCAGAACATCTCTTGTGTGATGACATGGGGGTGCAACGGGGGCTCACAGCACA
GAGTGACCGCTGCCTGGCGTTCCCCAGCACTCGGTGGTGAAGGCCCTACCTGCTGTAAGATTATGGGTCCATG
AAAGCAGTAAGCTGGACACAGAGGTGTAGTGTGCGGGACAGAGGGCCTTGAGATGCCTTTCTGTTGGTGTTTTA
GTGTTAAATACGGAGAGTATGGAACCTCTTACCTCCATTTTCTCAGCGGCTGTGAAGCAGCCTCCTAGCTTCGG
AAGTACGGACACTACGTCGCGTTTTCAAGCGTGTCTGTTCTGCAGGTAACAGCATCAAGCTGACGTGGAAGCAT
CTCGCGGTTTTCTAGAAACAGGCATTTTCTTATCCCTCTCCCGCTCCTTTTTCCACAAAGGTGAATTCATAAAT
GTAATACTAGTAAAGTGAATGAATTACTGAGTTTATACAGAAATTTAGGTAACCTTCTCCTTTAGTC TCAAGAGCG
AGTCTTGCTTTTTTAATGGGTGCCGTTTATGTTGCTGCCCGCCCTGTGTGCCTGGCTCCTCTGGGTGCCCTGGTGT
CTGCTGGTGGCTGGCAGTGGGCGCAGCGGAGGAGATTGTGCTGCAGCTCATACGGTGTGTCTGTCTATCTCAGTC
TGGAGTAAATGCAGTGTCTGCCGCTGTCTGATGGGTTCTGTCCCTCGTATTTTCTTTGCCTTCTATCCCATGGC
TGGCTACCGCTGCCTGGCAGCCAAGGGTGTGGTGCAGAGCTGGAGTGGCCTCTGGTGGAGCCTGCATCTTGTC
TCGTCTGCCTCTGCTTTACATTTGGTGTACTTTCGGGCGTGGTGGCAGTAAATGACACCGTGATTGAGCTTGTC
AGCAGAGCTGAAAGAGAAAGTAGAAGGATGTGCATTGTTTCTGTAAGATATCTTGCATGTATCTGTGTATTCAA
ATTCAAACAGAGATGGTTTGTCCATTTGTCCACTGAGAAATTAGAACTAGGGACAAGGGGGAGGAAAGTACTG
AAATACAGTTTATGAAGCAAGTGTGCTCGGGCTGTGCTTGTCCAGGAGCCCCAGCAGCATCTGAACTGAGGCT
TCTTCAGTCTGCAGGAACAGGATCATCTGTCTCAGCGGTGGGCGAGTGTTCATAGACAGCCAGGGAGTAAAC
ACTGTTGGCTCTGTGGGCTGTATGGTCTCTGCCATAAATAGTACAGAGATGTGGCTGTGTCTAGTACAACTTTTA
GACACAGAAATCTGAATGACATATATTGTTCTGTGTCAAGAACTTAGATTTTTTTTTTAACTATT TAAAAACGT
GAAACCTATTCTTAGCTCACAGGCCATGGAGAAGCTGGTGGGGACCAGACCCAGCTCCTTAGCTGGCTGGGCTGG
GGAGGGGGTAGTGACAGTGGCAGCTGCTACTCACTGCTCAGTGTGGAAAACACAGGACTTGGCAATCACAGCCCG
CAGAACCATCATGTGTGGCAGAAGCCTGAGGGATGCGGTTTTCTTGCCACGTGCTCTGTTCATTTTCTGTTGTTT
TTCTGCACCTTAAAGAATTACATGGAAGCATGTTTTATAAAATGAATTACCAGAGAAACAGAGATGGGCCGAGAT
TTTCAGAAATGGTCCCATGTGACCAAGTCTGCTGTTTGGGTGACAGTGTGTTGAAGATCTCCTTTGAGGATGTG
CAGTCTTTTTTTTTTTTTTTTTTGTAGATGGAGTTTGTGCCCAGGCTGGAGTGTGTCACAGTCTCGGCTCACTG
CAACCTCCACCTCCTGGGTTCAAGCAGTTCCTGTGCCGACGCTCCCAAGTAGCTGGGACTACAGGCATGCACCA
CCACGCCAGGCTAATTTTTGTATTTTAGTAGAGATGGGGTTTACCATGTCTCAAACCTCCTGACCTCAGGCGAT

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FIGURE 4710B

CCACCCACCTCAGCGTCCCAAAGTGCTGGGATTATAGGCGTGAGCCACCGCACCTGGCCTATGAGTGGTCTTTTA
ATTAGGAACAAATCTAATGGAAAGGAGAGTTGACTGAAGTTGGCCACAGGATTGTGAGCTGGGCAGTGCCTTCA
TGAAGGCTTGCCACCTTGGGACGCCCCAGTTTACTGGGGTGTCTTGCGGAGTGCAGAAGGCTTTCTGGCAGCTGC
CTGGGTTTGGCCAGACCCTGCCTCCCCCTCCCGCCGGCCAACCCCTAGTCCCCTTCCTGTCTCCACTTGCATTAG
GGGTGGCTGCTGTTCTGAGAACATTAGAACTGGGAAGAGAGATGGAGTCACATGGATTTTTGGTGGGCATTATTC
TAAACTTTCGTATCCAAGTTAGTCCCCCTTATTCCACTGTGGCATTGCCGTTCTAAGCAGTTACCTGATGCCTGC
TGCTGAAGAGCTGCTCACAGGAGGCGGCGGCGGCCCTGGCACTGCCCCCTTGCAATTAGGTCTTGTGTTTGATGTGT
TCTTGTGAATTTACTTTGTGAGAACAAATATTTACGCGTTGGGTTTCAAGGAATTTCTTTTAGCTCCCCATCTGGC
TGTGAAATTCAGGAAACCTCCCGTTGCCTAGTAATCACCCCATGTAGGTGTACATTGTGACAAAGTGCATCTGAC
CACTAAGGGGCCCCCTTGGTGACCCAGCACATTACAGCAGTGTTAAATGGCCTGCATTTTGGAGATGCTGGC
TGGCCTTTCAGTGCCTCCCAGGAAGACACATGGCCTTTCCCTCTTCAGATGCCTGAAGGGAGTGCCTTGAGGCAG
GTGATGTGCTGGGAGTGTGGGCGGCCTCCCTCTGGCCCCGGGGCCCTCTGTGGACCTTGGCTCCCTCCGTGGACC
TGGGCTTCGTGGTGAGCACTGCAGCCTCCCTGGGCATTCCCTCCAGCGCCAGCACCCTGCAACATATAGACCTG
AGTGCTATTGTATTTGGCTTGGTGTGTATGCTCTTCATTGTGTAAAATTGCTGTTCTTTTGACAATTTAAGTGA
TTGTTTTGTTTACTGTAAGTTTGAATAAAAAATGAAGAAAAAATTCCAATGACTGTGCTGTGGTTGGAGACTT
TATTTACCAAGATGTTTACTCTTCCTTTCCCTTCCATTTTGAGGAGCTGTGTCACTCCTCCTCCCCCCCAGTGC
TTTGTAGTCTCTCCTATGTCATAATAAAGCTACATTTTCTCTG

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FIGURE 4711

MVSRPEPEGEAMD AELAVAPP GCSHLGSFKVDNWKQNLRAIYQCFVWSGTAEARKRKAKSCICHVCGVHLNRLHS
CLYCVFFGCFTKKHIHEHAKAKRHNLAIDL MYGGIYCFLCQDYIYDKDMEIIAKEEQRKAWKMQGVGEKFSTWEP
TKRELELLKHNP KRRKITSNCTIGLRGLINLGNTCFMNCIVQALHTPTLLRDFFLSDRHRCEMQSPSSCLVCEMS
SLFQEFYSGHRSPHIPYKLLHLVWTHARHLAGYEQQDAHEFLIAALDVLHRHCKGDDNGKKANNPNHCNCIIDQI
FTGGLQSDVTCQVCHGVSTTIDPFWDISLDLPGSSTPFWPLSPGSEGNVVNGESHVSGTTTTLTDCLRRFTRPEHL
GSSAKIKCSGCHSYQESTKQLTMKKLP I VACFHLKRFEHS AKLRRKITTYVSFPLELDMTPFMASKE SRMNGQY
QQPTDSLNNDNKYSLFAVVNHQGTLES GHYTSFIRQHKDQWFKCDDAIITKASIKDVLDSEGYLLFYHKQFLEYE

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FIGURE 4712A

GTGGTGTGGTGTGGGAGCATCCCCGGCGCCCTGCTGCGGTGCGCGGAGCCTCGGCCTCTGTCTCCTCCCCTT
CCAGCCCTCACCTCCACGCGGGACCGCTCGCGCCAGTCAACTCCGCGCACGTTGCCCCCTGCTTGGCAGCCAATAA
AAGGGGGCTGAGGAAATACCGGACACGGTCACCCGTTGCCAGCTCTAGCCTTTAAATTCCCGGATCGGGCACCTC
CACGCACCGCGGGCTAGCGCCGACACCCAGCTAGCGTGCAAGGCGCCGCGGCTCAGCGCGCACCGGGCGGGCTTCGA
AATCGCAGTCTCCGGCGACCCCGAACTCCGCCCCGAGCCTCAGCCCCCTGGAAAGTGATCCTGGCATCCGAGAG
CCAAGATGCCGGCCCACTTGCTGCAGGACGATATCTCTAGCTCCTATACCACCACCACCACCATTACAGCGC
CTCCTTCCAGGGTCCCGCAGAATGGAGGAGATAAGTTGGAGACGACGCCCCCTCTACTTGGAGAAGACATTTCGCC
CTGATATAAAAGATGATATATATAACCTCACCTACAAGGATAAGGAAGGCCCAAGCCCCAAGGTTGAATATGTCT
GGAGAAACATCATCCTTATGTCTCTGTACACTTGGGCGCCCTGTATGGGATCACTTTGATTCTTACCTGCAACT
TATACACCTGGCTTTGGGGGGTATTCTACTATTTTATCAGTGCCCTGGGCATAACAGCAGGAGCTCATCCTCTGT
GGAGCCACTGATCTTACAAAGCTCGGCTGTCCCTGTGGCTCTTTCTGATCATTGCCAACACAATGGCATTCCAGA
ATGATGTCTATGAATGGGCTCGCGACCACCGTGCCACCACAAGTTTTAGAAAACACATGCTGATCCTCATAATT
CCTGACGTGGCTTTTTCTTCTCTCACGTGGGTGGCTGCTTGTGCGCAAAACACCCAACTGTCAAAGAGAAGGGCA
GTACGCTAGACTTGTCTGACCTAGAAGCCGAGAACTGGTGATGTTCCAGAGGAGGTACTACAAACCCGGCTTGC
TGTTGATGTGCTTCATCCTGCCACGCTTGTGCCCTGGTGTCTTCTGGGGTGAACTTTTCAAACAGCGTGTTCG
TTGCCACTTTCTTGCGATATGCTGTGGTGCTTAATGCCACGTGGCTGGTGAACAGTGCTGCCACCTCTTCAGAT
ATCGTCTTATGACAAGAACATTAGCCTCCGGGAGAATATCCTGGTTTACCTGGAGCTGTGGGTGAGGGCTTTC
ACAACTACCACCCTCTTTCCCTATGACTACTCTGCCAGTGAGTACCGCTGGCACATCAACTTCACCACATTCT
TCATTGATTGCATGGCCGCTTCGGTCTGGCCTACGACCAGAAGAAAGTCTCCAAGGCCGCCATCTTGGCCAGGA
TAAAAGAACCGGAGAGGGGAACTACAAGAGTGCGTGAGTTTGGGGTCCCTCAGGTTCTTCTTCAAAGCCAGC
CAGGCAGAGGTTTTAATGTCTGTTTATTAATACTGAATAATGCTACCAGGATGCTAAAGATGATGATGATAACC
CATCCAGTACAGTATCTTTTAAAATTGAAAGTATTGAAAGCCAACAACCTCTGCCTTTATGATGCTAACTGA
CATATTCTTCTCTTATCCTCTCTCTCTCTAGGCCCATTTGCTCTCTTTTCACTTTGTTGCTATCATCCTCTCT
TTCTTTATTGCCACCCAGGCAAGCAGCTGGTCAGTCTTTGTTTCAAGTGTCCAGCTTCCAAAGCCTAGACAACCTT
TCTGTAGCCTAAAACGAATGGTCTCTGCTCCAGATAACTCTCTTTCTTTGAGCTGTTGTGAGCTTTGAAGTAGGT
GGCTTGAGCTAGAGATAAAAACAGAACTCTTGGGTAGTCCCCTGTTAATTATCTTCAGCCAGGCTTTTGCTAGA
TGGAATGGAAGCAACTTCATTTGACACAAAGCTTCTAAAGCAGGTAAATTGTTGGGGAGAGAGATTGATGATG
ATGAATGTAAGGATGAGGGAAGCGAAGCAAGAGGAACCTCTTGCCATGATCAGACATGCAGCTGCCTACCTAGTG
AGGACTTCAAGCCCCACCACATAGCATGCTTCTCTCTCTCTCTGCTTGGGTAAGAAGTGGCTGTGGTGTGTTGG
CAATGCTAATTCAATGCCGCAACATATAGTTTAGGCCAAGGATAAAGAAGAGACACTTAAAGTTTGTAGTAAAAG
TGGTCTCTGCTGGGGAAGGGTTTTCTTTTTCTTTTTTTCTTTAATAACAAGGAGATTTCTTAGTTTATGTATCAAG
AATTCTTGAAGTTGGGTGTTTCCATAATTGGTAAAAACAGCAGCTCACAGAATTTTGAGTATTCATGAGCTGCT
CATCACAGTTCTTTCTCTTTCTGCTCTGCCATCTTCAGGATATTGGTTGTTCCCTCATAGTAATAAGATGGCT
GTGGCATTTCACACCATCAAAAAAAGGGAAGGATTTTAGGAGGTGGAGTCGGGTCAAACAAGAAATATATATAT
ACATATATACATTGCTTAGAACGTTAACTATTAGAGTATTTCCCTCCCAAAGAGGGATGTTTGAAAAAAGTCTG
AAGGAGAGGAGGAATTAGTTGGGATGCCAATTTCTCTCCACTGCTGTACATGAGATGGGGAGGTTGAGGGACAG
GATCTATAGGCAGCTTCTAAGAGCAAACCTTACACAGGAAGGGATCTGAGAACACATTGCCGGGGGCTTGAGAAG
GTTACTGAGTGAGTTATTGGGAGTCTTAATAAAATAAACTAGATATTAGGTCCATTCAATTAATTAGTTCCAGTTT
CTCCTTGAAATGAGTAAAAACTAGAAGGCTTCTCCCCACAGTGTTGTGCCCTTCACTCATTTTTTATTGGCGGG
GTGGGGGGCTCTGTAAACATCTAGCCTAAGTATAGAAGTGCCTGGGGGGCAGGGTTAGGAATCTCTTCACTACCC
TGATTCTTGATTCTGTTCTACCTGTCTGTCCCTTTTCTTTTACTAGATCTTTCTCTTCCCTGAACGTTTTCT
TCTTTCCCTGGACAGGCAGCCTCCTTTGGGTGATTAGAGGAGTGATGACTTGCTGTCCAGGCAGCTCCCTCC
TGCAGACAGAATGCTCAGGGTCACTGAACCACTGCTTCTCTTCCGAAAGTAGAGCTAGCTGCCACTTTCGCATGG
CCTCCGGAGTGCTCCACCTACACCTCTGTGCTCCCCGCCACACTGATGGCTCAAGACAAGGCTGGCAAACCT
CCCAGAAATGTCTCTGGCCAGAAAGCCTCTCTCTCCCTCCCTCTCTCATGAGGCACAGCCAAGCCAAGTGCTCA
TGAGCCAGTGGGCTGCCACAGAGCAAACGAGGGTTTTATTTTCAAGTCCCTCTCTCTGGATCAGAACAGAGAGC
ATGCTGAATGCCCTCTGCTTGTCTCGGTAAGGGTGCCCACTGAATCAGTGCTCTCAGCTGGCAGTGCAATGCT
TGTAAGAAGTAGGAGGAACAGTTCTCACTGGGAAGAAGCAAGGGCAAGAACCCAAGTGCTCACCTCAAAAGGAG

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FIGURE 4712B

GCCCTGTTCCCTGGAGTCAGGGTGAACCTGCAAAACCTTTGGCTGAGACCTGGGATTTGAGATACCACAAACCCTGC
TGAACAGAGTGCTGTTTCAGCAAACTAACCAGCATTCCCTATAGCCTAGGGAATAGTATAGAAGTCTGGCAAAAA
CAGAAACAGAACATCAGTGTTTTGAGAACCCTTGGACTACTCCTGTCCCTGTAGCTCAGTCATCAAAGCAGAAGCC
TGGCTTTGCTCTATTAAGATTGGAAATGTACACTACCAAAACACTCAGTCCACTGTTGAGCCCCAGTGCTGGAAGG
AAGGAGGGCCTTTCTTCCTGTGTTAATTGCATGGAGGCTACAGGGGTTAGCCTGGACTAAAGGCATCCTTGTGTT
TTGAGCTATTACCTCAGTAGAAAAGAATCTAAGGGAAGATCACTGTAGTTTAGCTCTGTTGACCTGTGCACCTA
CCCCTTGGAAATGCTGCTGTTATTTCTAATTCCACAGGTCATAAGATGCCTTCTTGATGATATATGAACGATAA
AAACAACTTTCACTTCTTCCTATTGTAATCGTGTGCCATGGATCTGATCTGTACCATGACCCTACATAAGGCTGG
ATGGCACCCTCAGGCTGAGGGCCCCAATGTATGTGTGGCTGTGGGTGTGGGTGTGGGTGTATCTGCTGAGTAAGG
AACACTATTCTCAAGATTCTAAAGCTCAATTCAAGTGACACATTAATGATAAACTCAGATCTGATCAAGAGTCTG
GATTTCTAACAGTCCTTGCTTCGGGGCTGTGCTGGCAACTTAACTCGGGTGCCCTTACATCTTTTCTAATCATAGT
GTTGCATATGAGCCTGCCCTCACTCCCTCTGTGGAATCCCTTTGCACCTGAGAGCCTACTGAAGTGGCTGGTAGA
AAAAGGGGCCTGAGTGAAGGATTATCAGTATCGCGATTTGCAGGATTCCCTTCTGGGCTTCATTCTGGAACTTT
TGTTAGGGCTGCTTTTAAGTGCCACATTTGATGGAGGGTGGAAGTAATTTGAATGTATTTGATTTATATATATA
TATATTTTAAAGGTTAAAAGATGGTTGTAGCATTTAAATGGAAAATTTCTCCTCGGTTTGCTAGTATCTTGGG
TGTATTCTCTCTAAGTGTAGCTCAAATAGGTCATCATGAAAGGTTAAAAAGTGAGGTGGCCATGTTACGCTGGT
GGTTAAGGCCAGGGCCTCTCCTACCACTGTGCCACTGACTTGCTATGTACCCCTGGGCAAGTCACTTAACTATAA
GGTGCCTCAGTTTTCTTCTGTAAATGGGGATAATAATACTGACCTACCTCAAAGGGCAGTTTTGAGGCGTGA
CTAATGCTTTTTAGAAAGCATTTTGGGATCCTTCAGCACAGGGATTCTCAAGACCTGAGTATTTTTTATAATAGC
AATGTCCACCATCAACTTGATATGTCCGTGTGTCCCAGATGCTGTCTATTAGTCTATATGGTTCTCCAAAAAATTG
AATGAATCCATTGGAGAAGCAGTGGATTAACTAGCCAGACAAAATTTGAGAATGCATAAAAAACACATTGCCACG
GAAACATACAGAGGATGCCTTTTCTGTGATTGGGTGGGATTTTTTCCCTTTTTATGTGGGACATAGTAGTTACTT
GTGACAAGAATAATTTTGAATAATTTCTATTAACTCAACTCTGAAGCTAATTGTACTAATCTGAGATTGTGTT
TGTTTATAATAAAAGTGAAGTAATC

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FIGURE 4713

ACGGTCACCCGTTGCCAGCTCTAGCCTTTAAATTCCCGGATCGGGCACCTCCACGCACCGCGGGCTAGCGCCGACA
CCCAGCTAGCGTGCAAGGCGCCGCGGCTCAGCGCGCACCGGGCGGGCTTCGAAATCGCAGTCCTCCGGCGACCCCG
AACTCCGCCCCGGAGCCTCAGCCCCCTGGAAAGTGATCCTGGCATCCGAGAGCCAAGATGCCGGGCCACTTGCTGC
AGGACGATATCTCTAGCTCCTATACCACCACCACCACCATTACAGCGCCTCCTTCCAGGGTCCCGCAGAATG
GAGGAGATAAGTTGGAGACGACGCCCCCTCTACTTGGAGAAGACATTGCCCCTGATATAAAAGATGATATATATA
ACCTCACCTACAAGGATAAGGAAGGCCCAAGCCCCAAGGTTGAATATGTCTGGAGAAACATCATCCTTATGTCTC
TGCTACACTTGGGCGCCCTGTATGGGATCACTTTGATTCTTACCTGCAACTTATACACCTGGCTTTGGGGGGTAT
TCTACTATTTTATCAGTGCCCTGGGCATAACAGCAGGAGCTCATCCTCTGTGGAGCCACTGATCTTACAAAGCTC
GGCTGTCCCTGTGGCTCTTTCTGATCATTGCCAACACAATGGCATTCCAGAATGATGTCTATGAATGGGCTCGCG
ACCACCGTGCCCAACACAAGTTTTTCAGAAACACATGCTGATCCTCATAATTCTTGACGTGGCTTTTTCTTCTCTC
ACGTGGGTTGGCTGCTTGTGCGCAAACACCCAAGTGTCAAAGAGAAGGGCAGTACGCTAGACTTGTCTGACCTAG
AAGCCGAGAACTGGTGATGTTCCAGAGGAGGTACTACAAACCCGGCTTGCTGTTGATGTGCTTCATCCTGCCCA
CGCTTGTGCCCTGGTGTCTTCTGGGGTGAACTTTTCAAACAGCGTGTTGTTGCCACTTTCTTGCGATATGCTG
TGGTGCTTAATGCCACGTGGCTGGTGAACAGTGCTGCCCACCTCTTCAGATATCGTCCTTATGACAAGAACATTA
GCCTCCGGGAGAATATCCTGGTTTTACCTGGAGCTGTGGGTGAGGGCTTTCACAACTACCACCACTCCTTTCCCT
ATGACTACTCTGCCAGTGAGTACCGCTGGCACATCAACTTCACCACATTCTTCATTGATTGCATGGCCGCCTTCG
GTCTGGCCTACGACCAGAAGAAAGTCTCCAAGGCCGCCATCTTGGCCAGGATTAAGAAGAACCGGAGAGGGAACT
ACAAGAGTGGCTGAGTTTGGGGTCCCTCAGGTTCTTCTTCAAAGCCAGCCAGGCAGAGGTTTAAATGTCTGTT
TATTAATACTGAATAATGCTACCAGGATGCTAAAGATGATGATGATAACCCATTCCAGTACAGTATTCTTTTAA
AATTCGAAAGTATTGAAAGCC

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FIGURE 4714

CTTCCCTTTTGC GGCCATCACCGAAGCGGGAGCGGCCAAAATGAAGTTTAATCCCTTTGTGACTTCCGACCGAAG
CAAGAATCGCAAAAGGCATTTCAATGCACCTTCCCACATTGGAAGGAAGATTATGTCTTCCCTCTTTCCAAAGA
GCTGAGACAGAAAGTACAACGTGCGATCCATGCCCATCCGAAAGGATGATGAAGTTCAGGTTGTACGTGGACACTA
TAAAGGTCAGCAAATTGGCAAAGTAGTCCAGGTTTACAGGAAGAAATATGTTATCTACATTGAACGGGTGCAGCG
GGAAAAGGCTAATGGCACAACTGTCCACGTAGGCATTACCCCAGCAAGGTGGTTATCACTAGGCTAAAACCTGGA
CAAAGACCGCAAAAAGATCCTCGAACGGAAAGCCAAATCTCGCCAAGTAGGAAAGGAAAAGGGCAAATACAAGGA
AGAAACCATTGAGAAGATGCAGGAATAAAGTAATCTTATATACAAGCTTTGATTAAAACCTGAAACAAAGAAAAA

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FIGURE 4715

MKFNPFTSDRSKNRKRHFNAPSHIRRKIMSSPLSKELRQKYNVRSMPIRKDDEVQVVRGHYKGQQIGKVVQVYR
KKYVIYIERVQREKANGTTVHVGIHPSKVVI TRCLKLDKDRKKILERKAKSRQVGKEKGKYKEETIEKMQE

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FIGURE 4716A

GGAGAAAGCGGGCGGAAGTTCCACGCCAAGATACTGGATTTCGGTGCTGAGGCGGGCGGCTGCGGCACGGGAAAGGC
TCAGTGACTGAAGCTCCAAAGGCCAGCAGGCTGGTGGGGACGTGACCGAAGCGAGGCTCTGGTTCCCTTTTCGGTG
GGCGCCATTTGAGCCTCATCTCTGGCTTCCCCAGGATGCGCCGGCAGCCGGGGAGCGGCTCCGGGCGCGAGGTCT
GAGGATGATCTTTCTGTGCGCCGCTACGCGCTCCGGTGGCTGCGACGGCCCGAAGACCGTGCCCTTTTCCGCGC
CGCCATGGAGATGGCCCTCCGAGGCGTGCGGAAAGTCTCTGTGTGGCCGAAAAAACGACGCGGCCAAGGGGAT
CGCCGACCTGCTGTCAAACGGTCGCATGAGGCGGAGAGAAGGACTTTCAAATTTCAACAAGATCTATGAATTTGA
TTATCATCTGTATGGCCAGAATGTTACCATGGTAATGACTTCAGTTTTCTGGACATTTACTGGCICATGATTTCCA
GATGCAGTTTCGAAAAATGGCAGAGCTGCAACCCCTCTTGTCTCTTTGAAGCAGAAATTGAAAAGTACTGCCCAGA
GAATTTTGTAGACATCAAGAAAACTTTGGAACGAGAGACTCGCCAGTGCCAGGCTCTGGTGATCTGGACTGACTG
TGATAGAGAAGGCGAAAAACATCGGGTTTGAGATTATCCACGTGTGTAAGGCTGTAAAGCCCAATCTGCAGGTGTT
GCGAGCCCGATTCTCTGAGATCAACCCCATGCCGTGAGGACAGCTTGTGAAAACCTGACCGAGCCTGATCAGAG
GGTGAGCGATGCTGTGGATGTGAGGCAGGAGCTGGACCTGAGGATTGGAGCTGCCTTTACTAGGTTCCAGACCCT
GCGGCTTCAGAGGATTTTCTGAGGTGCTGGCAGAGCAGCTCATCAGTTACGGCAGCTGCCAGTTCCCCACACT
GGGCTTTGTGGTGGAGCGGTTCAAAGCCATTGAGGCTTTTGTACCAGAAATCTTCCACAGAATTAAAGTAACTCA
TGACCACAAAGATGGTATCGTAGAATTCAACTGGAAAAGGCATCGACTCTTTAACCACACGGCTTGCCTAGTTCT
CTATCAGTTGTGTGGAGGATCCCATGGCAACTGTGGTAGAGGTGAGATCTAAGCCCAAGAGCAAGTGGCGGCC
TCAAGCCTTGAGACTGTGGAGCTTGAGAAGCTGGCTTCTCGAAAGTTGAGAATAAATGCTAAAGAAACCATGAG
GATTGCTGAGAAGCTCTACACTCAAGGGTACATCAGCTATCCCCGAACAGAAACAAACATTTTCCAGAGACTT
AAACCTGACGGTGTGGTGGAAACAGCAGACCCCCGATCCACGCTGGGGGGCCTTTGCCAGAGCATTCTAGAGCG
GGGTGGTCCCACCCCACGCAATGGGAACAAGTCTGACCAAGCTCACCTCCCATTCACCCACCAAATACACCAA
CAACTTACAGGGAGATGAACAGCGACTGTACGAGTTTATTGTTGCGCCATTTCTGGCTTGCTGCTCCAGGATGC
TCAGGGGCGAGAGACCACAGTGGAGATCGACATCGCTCAGGAACGCTTTGTGGCCCATGGCCTCATGATTCTGGC
CCGAAACTATCTGGATGTGTATCCATATGATCACTGGAGTGACAAGATCCTCCCTGTCTATGAGCAAGGATCCCA
CTTTCAGCCAGCACCGTGAGATGGTGGACGGGAGACCAGCCCAAGCTGCTCACCAGGCGGACCTCAT
TGCCCTCATGGAGAAGCATGGCATTGGTACGGATGCCACTCATGCGGAGCACATCGAGACCATCAAAGCCCGGAT
GTACGTGGGCTCACCCAGACAAGCGGTTCTCCCTGGGCACCTGGGCATGGGACTTGTGGAAGGTTATGATT
CATGGGCTATGAAATGTCTAAGCCTGACCTCCGGGCTGAACTGGAAGCTGATCTGAAGCTGATCTGTGATGGCAA
AAAGGACAAATTTGTGGTTCTAAGGCAGCAAGTGCAGAAATACAAGCAGGTTTTTCATTGAAGCGGTGGCTAAAGC
AAAGAAATTGGACGAGGCTTGCCCCAGTACTTTGGGAATGGGACAGAGTTGGCCAGCAAGAAGATATCTACCC
AGCCATGCCAGGCCATCAGGAAGTGCCACAGTGCAACAAGGACATGGTCCTTAAGACCAAGAAGAATGGCGG
GTTCTACCTCAGCTGCGATGGGTTTCCCAGAGTGTGCTCAGCTGTGTGGCTTCTGACTCGGTGCTGGAGGCCAG
CAGGGACAGCAGTGTGTGCCAGTTTGTGAGCCACACCCTGTGTACAGGTTAAAGTTAAAGTTTAAAGCGCGGTAG
CCTTCCCCCGACCATGCCTCTGGAGTTTGTGTTGCTGCATCGGCGGATGCGACGACACCCTGAGGGAGATCCTGGA
CCTGAGATTTTTCAGGGGGCCCCCAGGGCTAGCCAGCCCTCTGGCCGCTGCAGGCTAACCAGTCCCTGAACAG
GATGGACAACAGCCAGCACCCCCAGCCTGCTGACAGCAGACAGACTGGGTCTCAAAGGCTCTGGCCAGACCCT
CCCACCACCCACGGCTGCTGGTGAAAGCAATTCTGTGACCTGCAACTGTGGCCAGGAGGCTGTGCTGCTCACTGT
CCGTAAGGAGGGCCCCAACCGGGGCGGCAGTTCTTTAAGTGCAACGGAGGTAGCTGCAACTTCTTCTGTGGGC
AGACAGCCCCAATCCGGGAGCAGGAGGGCCTCTGCCTTGGCATATAGACCCCTGGGCGCCTCCCTGGGATGCC
ACCAGGCCCAGGGATCCACCTAGGTGGGTTTGGCAACCCTGGTGATGGCAGTGGTAGTGGCACATCTGCCTTTG
CAGCCAGCCCTCCGTACACGGACTGTGCAGAAGGATGGACCCAACAAGGGGCGCCAGTTCCACACATGTGCCAA
GCCGAGAGAGCAGCAGTGTGGCTTTTCCAGTGGGTGATGAGAACACCGCTCCAGGGACTTCTGGAGCCCCGTC
CTGGACAGGAGACAGAGGAAGAACCTGGAGTGGGAAGCCAGAAGCAAAAGGCCCGGGCCAGTTCTCTCAGACAT
GGGGTCCACAGCAAGAAACCCCGAAATGCAGCCTTTGCCACCAGCCTGGACACACCCGTCCTTTTGTCTCA
GAACAGATGAGCTCAGGGTAGGGTAGAGAAGCCACTTTCTCAGACCTGTCCCCTTTGTGTTTAGAAATGAGTTA
ACCAGGACCAAGTGGCCATTTAGTGTCTGGAACTTAGAGGACAGTGTGGCCTTTGGAGTCGGGCTTCTTGT
GTTAAGGGGCACAAGGTCCAGATCACTCTGGAGCAGGCCAGCTCTGCTGGACAGTGACCCTCTTCCAGGCCTCA
GGAGTGACCATAGCCACTGCTGAAAAGTCACGCAGCTGCTCCCTCGGACCCCCAAGGATGGTTGCTGTTAGCAG
AGGATTGGTGCAGTCCAGCTGAAGCCCACTGTGTGCCAAAGGAAGAAGCTCCAGGGCTGCTTCTTACCTGC

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FIGURE 4716B

AGAAAGCCCCAAGTGAGCCACCAGCACTCATGGGGCAGTCCCTGTCCAGGCTGCCCAGGGCTTCTCATAGACGTC
CTGAGAAGGACGGTGTAATGCAAGGAAATGGCTGTGGTAACACTGATCCTTCAGAAGAAGCTTCATTCCTCTTA
ATCTAGTTAAGCCAGGACATCCAGAATTCATTGCTTTAATAAAGAACCCAGGCCGGG

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FIGURE 4717

MIFPVARYALRWLRRPEDRAFSRAAMEMALRGVRKVLCAEKNDAAKGIADLLSNGRMRRREGLSKFNKIYEFDY
HLYGQNVMTSVSGHLLAHDFQMQRKWQSCNPLVLFEAIEKYCPENFVDIKKTLERETRQCQALVIWTD
CD
REGENIGFEIIHVCKAVKPNLQVLRARFSEITPHAVRTACENLTEPDQRVSDAVDVRQELDLRIGAA
FTRFQTLR
LQRIFFPEVLAEQLISYGSCQFP TLGFVVERFKAIQAFVPEIFHRIKVTHDHKD GIVEFNWKRH
RLEFNHTACLVLY
QLCVEDPMATVVEVRSKPKSKWRPQALDTVELEKLASRKLRLINAKETMRIA EKLYTQGYISY
PRTE T NIFPRDLN
LTVLVEQQTPDPRWGAFQSI LERGGPTPRNGNKSDQAHPP IHPTKYTNNLQGDEQRLYEFIV
RHFLACCSQDAQ
GQETTVEIDIAQERFVAHGLMILARNYLDVYPYDHWSDKILPVYEQGSHFQ PSTVEMVDGETS
PPKLLTEADLIA
LMEKHGIGTDATHAEHIETIKARMYVGLTPDKRFLPGHLGMGLVEGYDSMGYEMSKPDLRAE
LEADLKLICDGKK
DKFVVL RQQVQKYKQVFIEAVAKAKKLDEALAQYFGNGTELAQQEDIYPAMPEPIRKCPQC
NKDMVLKTKKNGGF
YLSCMGFPECRSAVWLPDSVLEASRDSSVCPVCQPHPVYRLKLKFKRGS LPPTMPLEFVCCIG
GCDDTLREILD
LRFSGGPPRASQPSGRLQANQSLNRMDNSQHPQPADSRQTGSSKALAQTLPPPTAAGESNSV
TCNCGQEAVLLTVR
KEGPNRGRQFFKCNGGSCNFFLWADSPNPGAGGPPALAYRPLGASLGCPPGPGIHLGGFGNPG
DGSGSGTSCLCS
QPSVTRTVQKDGP NKGRQFHTCAKPREQQCGFFQWVDENTAPGTSGAPSWTGDRGRTLESEAR
SKRPRASSSDMG
STAKKPRKCSLCHQPGHTRPFCPQNR

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FIGURE 4718

GCCACTGCTGAAAAGTCACGCAGCTGCTCCCTCGGACCCCCCAAGGATGGTTGCTGTTAGCAGAGGATTGGTGCA
GTCCCAGCTGAAGCCCCTGTGTGCCAAAGGAAGAAGCTCCCAGGGCTGCTTCCTTCACCTGCAGAAAGCCCCAA
GTGAGCCACCAGCACTCATGGGGCAGTCCCTGTCCAGGCTGCCCAGGGCTTCTCATAGACGTCCTGAGAAGGACG
GTGTAATGCAAGGAAATGGCTGTGGTAACACTGATCCTTCAGAAGAAGCTTCATTCCCTCTTAATCTAGTTAAGC
CAGGACATCCAGAATTCATTGCTTTAATAAAGAACCCAGGCCGGGTGCAGTGGCTCATGCCTGTAATCCCAGCAC
TTTGGGAGGCTGTGGGGGGCGGATTGCCTGAGCTCAGGAGTTTCGAGACCAGCCAGGGCAACATGGTGAAACCCTG
TCTCTACTAAAAATACAAAAAATTAGCCAGGTGTGGCGGTGTGCGCCTGTAGACCCGGCTACTCAGGAGGCTGAGG
TTGCAGTGAGCTGAGATCGGGCCATTGCACTCCAGCCTGGGCAAAAAGAGTGAAACTCTGTCTCAAGAAAAAAA
AAAAA

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FIGURE 4719A

CTAGCCCGGCGCGGCCCGGCAGCGAGAGCGGCGCCATCGAGGCCACCGGGGTGCTGCCGTTTCGTGCGTGGCGTGG
ACCTCAGCGGCAACGACTTCAAGGGCGGCTACTTCCCTGAGAATGTCAAGGCCATGACCAGCCTGCGGTGGCTGA
AGCTGAACCGCACTGGCCTCTGCTACCTGCCCGAGGAGCTGGCCGCCCTGCAGAAGCTGGAACACTTGTCTGTGA
GCCACAACAACCTGACCACGCTTCATGGGGAGCTGTCCAGCCTGCCATCGCTGCGCGCCATCGTGGCCCCGAGCCA
ACAGTCTGAAGAAATCCGGAGTCCCCGATGACATCTTCAAGCTAGATGATCTCTCAGTCTTGGACTTGAGCCACA
ACCAGCTGACAGAGTGGCCGCGGGAGCTGGAGAACGCCAAGAACATGCTGGTGTGTAACCTCAGCCACAACAGCA
TCGACACCATCCCCAACAGCTCTTCATCAACCTCACTGACCTACTATACCTGGACCTCAGCGAGAACC GCCTGG
AGAGCCTGCCCCCGCAGATGCGCCGCTGGTGCACCTGCAGACGCTCGTGCTCAATGGAAACCCCTGCTGCATG
CACAGCTCCGGCAGCTCCCAGCGATGACGGCCCTGCAGACCCTGCACCTGCGGAGCACCCAGCGCACCCAGAGCA
ACCTGCCACCAGCCTGGAGGGTCTGAGCAACCTCGCAGACGTGGATCTGTCTGCAATGACCTGACACGGGTGC
CCGAGTGTCTGTACACCCCTCCCCAGCCTGCGCCGCTCAACCTCAGCAGCAACCAGATCACGGAGCTGTCCCTGT
GCATAGACCAAGTGGGTGCACGTGGAACCTCTGAACCTGTCCGAAATCAGCTCACCTCACTGCCCTCAGCCATT
GCAAGCTGAGCAAGCTGAAGAAGCTGTACCTGAATTCCAACAAGCTGGACTTTGACGGGTGCCCTCAGGCATTG
GCAAGCTCACCAACCTGGAAGAGTTTCATGGCTGCCAACAAACCTGGAGCTGGTCCCTGAAAGTCTCTGCAGGT
GCCCCAAGCTGAGGAAACTTGTCTGAACAAGAACCCACCTGGTGACCTCCCAGAAGCCATCCATTTCTTGACGG
AGATCGAGGTCTTGGATGTGCGGGAGAACCCCAACCTGGTTCATGCCGCCAAGCCCGCAGACCGTGCCGCTGAGT
GGTACAACATCGACTTCTCGCTGCAGAACCAGCTGCGGTAGCGGGTGCCTCTCTGCTACCGTGGCTGCAGCTG
CAGCTGCAGGGAGTGGGCCCAAGGACCTATGGCTCGCAAGATGCGACTGCGGAGGCGCAAGGATTACGCCCAGG
ATGACCAGGCCAAGCAGGTGCTGAAGGGCATGTTCAGATGTTGCCAGGAGAAGAACAAGCAGGAGGAGAGCG
CAGATGCCCGGGCCCCCAGCGGGAAGGTGCGGCGTTGGGACCAGGGCCTGGAGAAGCCCCGCTTGACTACTCCG
AGTTCTTTCAGGAGGACGTGGGCCAGCTGCCCGACTGACCATCTGGCAGATAGAGAACTTCGTGCCTGTGCTGG
TGGAGGAAGCCTTCCACGGCAAGTTCTACGAGGCTGACTGCTACATTGTGCTCAAGACCTTTCTGGATGACAGCG
GCTCCCTCAACTGGGAGATCTACTACTGGATTGGCGGGGAGGCCACACTCGACAAGAAAGCTTGCTCTGCCATCC
ACGCTGTCAACTTGCGCAACTACCTGGGTGCTGAGTGCCGCACTGTCCGGGAGGAGATGGGCGATGAGAGCGAGG
AGTTCTTGCAGGTGTTTGACAACGACATCTCCTACATTGAGGGTGGAAACAGCCAGTGGCTTCTACACTGTGGAAG
ACACACACTATGTACCAGGATGTATCGTGTGTATGGGAAAAAGAACATCAAGTTGGAGCTGTGCCCTCAAGG
GGACCTCTCTGGACCCAAGGTTTGTCTTCTGCTGGACCGAGGGCTAGACATCTACGTATGGCGGGGGGCCAGG
CCACACTGAGCAGCACCACCAAGGCCAGGCTCTTTCAGAGAAAAATTAACAAGATGAGCGGAAAGGGAAGGCTG
AGATCACACTGCTGGTGCAGGGCCAGGAGCTCCAGAGTTCTGGGAGGCACTGGGTGGGGAGCCCTCTGAGATCA
AGAAGCACGTGCTGAAGACTTCTGGCCGCGCAGCCCAAGCTGTACAAGGTGGGCCTGGGCTTGGGCTACCTGG
AGCTGCCACAGATCAACTACAAGCTCTCGTGGAAACATAAGCAGCGTCCCAAGGTGGAGCTGATGCCAAGAATGC
GGCTGCTGCAGAGTCTGCTGGACACGCGCTGCGTGTACATTCTGGACTGTTGGTCCGACGTGTTTCATCTGGCTCG
GCCGCAAGTCCCCGCGCCTGGTGCAGCTGCCGCCCTCAAGCTGGGTGAGGAGCTGTGCGGGATGCTGCACCGGC
CACGCCATGCCACGGTCAGCCGACGCTCGAGGGCACCGAGGCGCAGGTGTTCAAGGCCAAGTTCAAGAATTGGG
ACGATGTGTTGACGGTGGACTACACACGCAATGCGGAGGCCGTGCTGCAGAGCCCGGGTCTCTCCGGGAAGGTGA
AACGCGACGCCGAGAAGAAAGACCAGATGAAGGTGACCTCACTGCGCTTTTCTGCGCGGCAGCCGCCCATGT
CGCTGGCCGAGGCGGAGCAGCTGATGGAGGAGTGGAAACGAAGACCTAGACGGCATGGAGGGTTTCTGTGCTGGAGG
GCAAGAAGTTTGCAGGCTGCCGGAAGAGGAGTTTGGCCACTTCTACACGCAGGACTGCTACGTCTTCTCTGCA
GGTACTGGGTGCCTGTGGAGTACGAGGAGGAGGAAAAGGAAGACAAGGAGGAGAAGGCCGAGGGCAAAGAAG
GCGAGGAAGCAACCGCTGAGGCAGAGGAGAAGCAGCCAGAGGAGGACTTCCAGTGATCGTGTACTTCTGGCAGG
GCCGTGAAGCCTCCAATATGGGCTGGCTCACCTTCACCTTCAGCCTGCAAAAGAAGTTGAGAGCCTCTTCCCTG
GGAAGCTGGAGGTGGTACGCATGACGCAGCAGCAGGAGAACCCCAAGTTCTGTCCCATTTCAAGAGGAAGTTCA
TCATCCACCGGGGCAAGAGGAAGGCGGTCCAGGGCGCCCAACAGCCAGCCTCTACCAGATCCGCACCAACGGCA
GCGCCCTCTGCACCCGCTGCATCCAGATCAACACCGACTCCAGCCTCCTCAACTCCGAGTTCTGCTTATCTCA
AGGTTCCCTTTGAGAGTGAGGACAACCAGGGCATCGTGTATGCTGGGTGGGCGGGCATCAGACCCTGACGAAG
CCAAGTTGGCAGAAGACATCCTGAACACCATGTTTGACACCTCCTACAGCAAGCAGGTTATCAACGAAGGTGAGG
AGCCTGAGAACTTCTTCTGGGTGGGCATTGGGGCACAGAAGCCCTATGATGACGATGCCGAGTACATGAAACACA
CACGTCTCTTCCGGTGCTCCAACGAGAAGGGCTACTTTGCAGTGAAGTGTGCTCCGACTTTTGCCAAGATG

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FIGURE 4719B

ACCTGGCAGATGATGACATCATGTTGCTAGACAATGGCCAAGAGGTCTACATGTGGGTGGGGACCCAGACTAGCC
AGGTGGAGATCAAGCTGAGCCTGAAGGCCTGCCAGGTATATATCCAGCACATGCGGTCCAAGGAACATGAGCGGC
CGCGCCGGCTGCGCCTGGTCCGCAAGGGCAATGAGCAGCACGCCTTTACCCGCTGCTTCCACGCCTGGAGCGCCT
TCTGCAAGGCCCTGGCCTAAGACAGGCTGGCACAGCCCCAGGCTTGGTGAGGAAGAGGAAGGGGCCTCATCCACT
GTCTGCTAGCAAAGAATGTACTCAGGTGACACCACCTGCTCCAGCCACGTCCAGTGCCACAGTCCCCAGTAGCCT
CAAGCAGCACCAATGGGGATGACCCTGACAGGTGCCCTCAGGGGTCTGGGAAATCCAACCTCTCTCCACAGTGTGA
GTGCACGTGTGAAGCCCCCTCACTCTTCCGCTAGGGATAAAGCAGATGTGGATGCCCTTTAAGAGATATTAAATG
CTTTTATTTTCAATATT

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FIGURE 4720

MEATGVLPFVRGVDLSGNDFFKGGYFPENVKAMTSLRWLKLNRGTGLCYLPEELAAQKLEHLSVSHNNLTTLHGEL
SSLPSLRAIVARANSKNSGVDDIFKLDDLSVLDLSHNQLTECPRELENAKNMLVLNLSHNSIDTIPNQLFINL
TDLLYLDLSENRLSLPPQMRRLVHLQTLVLNGNPLLHAQLRQLPAMTALQTLHLRSTQRTQSNLPTSLEGLSNL
ADVDLSCNDLTRVPECLYTLPSLRRLNLSSNQITELSLCIDQWVHVETLNLNRNQLTSLPSAICKLSKLKKLYLN
SNKLDLDFGLPSGIGKLTNLEEFMAANNLELVPESLCRCPKLRKLVLNKNHLVTLPEAIHFLTEIEVLDVRENPN
LVMPPKPADRAAEWYNIDFSLQNQLRLAGASPATVAAAAAGSGPKDPMARKMRLRRRKDSAQDDQAKQVLKMS
DVAQEKNNKQEEASADARAPSGKVRWDQGLEKPRLDYSEFFTEDVGQLPGLTIWQIENFVPLVEEAFHGKFYEA
DCYIVLKTFLDDSGSLNWEIYYWIGGEATLDKKACSAIHAVNLRLNYLGAECRTVREEMGDESEEFQVFDNDISY
IEGGTASGFYTVEDTHYVTRMYRVYGKKNIKLEPVPLKGTSLDPRFVFLDRGLDIYVWRGAQATLSSTTKARLF
AEKINKNERKGAETLLVQGQELPEFWEALGGEPESEIKKHVPEDFWPPQPKLYKVGLGLGYLELPQINYKLSVE
HKQRPKVELMPRMRLQSLDTRCVYILDWSDVFIWLGRKSPRLVRAAALKGQELCGMLHRPRHATVSRSLG
TEAQVFKAKFNWDDVLTVDYTRNAEAVLQSPGLSGKVKRDAEKKDQMKADLTALFLPRQPPMSLAEAEQIMEEW
NEDLDGMEGFVLEGKKFARLPEEEFGHFYTQDCYVFLCRYWVPVEYEEEEKKEDKEEKAEGKEGEEATAEAEKQ
PEEDFQCIVYFWQGREASNMGWLTFTFSLQKKFESLFPKGLEVVRMTQQQENPKFLSHFKRKFIIHRGKRKAVQG
AQQPSLYQIRTNLSALCTRCIQINTDSSLLNSEFCFILKVPFESEDNQGIVYAWVGRASDPDEAKLAEDILNTMF
DTSYSKQVINEGEEPENFFWVGIGAQKPYDDDAEYMKHTRLFRCSNEKGYFAVTEKCSDFCQDDLADDDIMLLDN
GQEVYMWVGTQTSQVEIKLSLKACQVYIQHMRSKEHERPRRLRLVRKGNEQHAFTRCFHAWSAFCKALA

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FIGURE 4721A

AGACTGTGGAGCATGGCTTCCCCAATCAGCCCAGCGCCCTGGCCTTCGACCCGGAACCTTCGCATCATGGCCATCG
GCACCAGGTCTGGGGCTGTCAAGATCTATGGTGCACCTGGCGTGGAGTTCACAGGCCTGCACCGGGATGCAGCCA
CTGTACACAGATGCACTTCTTGACCGGCCAGGGCCGCTCCTGTCCCTGCTTGATGACAGCAGTCTGCATCTCT
GGGAGATTGTCCACCATAATGGCTGTGCCACCTGGAAGAAGCACTCAGTTTCCAGCTGCCCAGCCGGCCCGGCT
TTGATGGTGCCAGTGCTCCGCTCAGCCTTACCCGAGTCACAGTGGTCCTGCTGGTGGCTGCCGGCGACATAGCAG
CCCTGGGCACTGAGGGCAGCAGTGTCTTCTTCTGGATGTTACCACCTGACCCTGCTCGAGGGGCAGACGCTTG
CCCCAGGCGAGGTTCTGCGCAGCGTGCCAGACGACTACCGCTGTGGGAAGGCACTGGGCCCCGTGGAGTCACTCC
AGGGACACCTGCGGGACCCACAAAGATTCTCATTTGGCTACAGCCGGGGCCTGCTGGTCATCTGGAACCAGGCCT
CGCAGTGTGTGGACCACATCTTCTTGGGAACCAGCAGCTGGAGAGCCTATGCTGGGGCGTGATAGCAGCACTG
TGGTCAGCTCACACAGCGATGGCAGCTATGCTGTCTGGTCTGTGGATGCCGGCAGCTTCCCAACGCTGCAGCCCA
CGGTAGCCACCACACCTTACGGCCCCCTTTCCCTGCAAGGCCATTAAACAAGATTCTGTGGCGGAACCTGTGAATCTG
GGGGCCACTTTATCATCTTCAGCGGTGGCATGCCCGTGCCAGCTATGGTGACCGCCACTGTGTAAGTGTGCTTC
GAGCCGAGACATTGGTGACGCTGGACTTCACTTCCCGCATCATCGACTTCTTCACAGTGACACAGCACAGGCCCG
AGGATGAATTTGATGACCCCAAGGCCCTGGCTGTGCTGCTGGAAGAGGAGCTGGTGGTGTGACCTGCAGACTC
CTGGCTGGCCAGCTGTGCTGCCCCATACCTGGCCCCGCTGCACTCCTCTGCAATCACTTGCTCGGCCCCACGTGG
CCAGTGTCCCGCCAAAGCTGTGGGCCCGCATTGTGAGCGCTGGCGAGCAGCAGAGCCCCCAGCCTGTCTCCAGTG
CCTTGAGCTGGCCCATCACTTGGGGGGCGAAACCTGGGCCAGGAGCCGTACAGCGAGGGGTGCTGCTGACGGGCC
ATGAGGACGGCAGCGTGAGGTTCTGGGATGCCTCGGGTGTGGCGCTGCGGCCGCTCTATAAGCTGAGCACAGCTG
GCCTCTTCCAGACAGACTGTGAGCAGCTGACAGCTGGCCAGGCTGCCGAGGACGACTGGCCACCCTTCCGCA
AGGTGGGCTGCTTCGATCCCTACAGTGACGATCCCCGGCTTGGCGTGCAGAAGGTTGCTCTCTGCAAGTATACAG
CCCAGATGGTGGTGGCTGGCACTGCAGGCCAGGTGCTGGTACTGGAGCTTAGTGATGTGCCGTGGAGCAGGCGG
TCAGCGTGGCCATCATAGACCTCCTCCAGGACCGCGAGGGCTTACATGGAAGGGCCACGAGCGGCTGAGCCAC
GCACGGGGCCGCTGCCCTGGCCTGCTGGCTTCCAGCCCCGTGCTCTGGTGCAGTGCTGCCGCCAGCTGCTGTAA
CCGCTGTACACTCCACACCGAGTGAGCCTCGTGGCTTTTGGACCAGTCAATGGCTTTGGCCTCTTCGACTACC
AGCGCAAGAGCCCTGTGCTGGCCAGGTGCACTCTTACCCCCAATGACTCCCTGGCCATGGAGGGTCCGCTCTCCC
GGGTGAAGTCTCTCAAGAAGTCACTGCGCCAGTCTTTCCGGCGCATTGCAAGAGTCTGTCTCTGGCAAGAAGC
GGGCTGCTAATGCCAGCAGCAAGGAAGCCAATGCACAGCTGGCTGAGCAGGCCTGCCCCCAGCAGTGGAGATGA
CGCCCGTGCAGCGCCGCATTGAGCCCCGCTCTGCCGATGACTCCTTGTCGGGTGTCTGTGCGTTGCCATACTTTG
CCGACACATTCTTTCAGATGGGGCCACCACGGGGCCACCATGTGGGTGGCACCAACTCAGGCTCTGTGTTTCG
CCTATGCACTGGAGGTGCCGGCAGCAGCAGTGGTGGTGAGAAGCGGCCTGAGCAAGCGGTGGAGGCCGTGCTGG
GCAAGGAGGTGCAGCTGATGCACCGGGCGCCTGTGGTGGCATTGCCGTGTTGGACGGGCGTGGCCGCCCACTGC
CCGAGCCCTACGAGGCCTCACGGGACCTGGCGCAGGCACCTGACATGCAGGGTGGTCACGCTGTGCTCATCGCAT
CTGAGGAGCAGTTCAAGGTGTTCACTGCCCCAAGGTGAGCGCGAAGACCAAGTTCAAGCTGACGGCCCCATGAGG
GCTGTCTGTGCGCAAGGTGGCACTGGCCACGTTTGCCAGTGTGGCCTGCGAGGACTATGCTGAGACCTGCCTGG
CCTGCCTACCAACCTGGGTGACGTCCACGTCTTCTCGGTGCCCTGGCCTGCGGGCCCCAGGTGCACTATTCCTGCA
TCCGGAAGGAGGACATCAGCGGCATCGCTTCTGTGCTCTTTACGCGCCATGGCCAGGGCTTTTACCTGATATCCC
CATCAGAATTTGAACGCTTCTCCCTAAGTGCCCGGAACATCACAGAGCCGCTCTGCTCTCTGGACATTAAGTGGC
CCCGCGATGCCACCCAGGCCAGTTACAGGATCCGAGAGTCACCCAAGCTGAGCCAGGCTAACGGGACCCCAAGCA
TCCTGCTGGCCCCACAGAGCCTTGATGGAAGCCCTGATCCAGCCCACAGCATGGGACCTGACACCCCGAGCCAC
CCGAGGCTGCACTCTCACCATGTCCATCGACTCAGCCACCAAGTGTGACACCACGCTGGACACGACAGGGGACG
TCACAGTGGAAGATGTGAAGGATTCTCTGGGCTCCTCTGAGGAGTCAGAGAAGAACCTGAGGAACCTGGCAGAAG
ACGAGGCCCCACGCTGTGCCATCCTGATCAAATGAGGAAGGCCAGAATATCCCGACCTCCACCTGCCCTGCTCG
GAGCTGGAGTGCTGGATCCCTGGCACCTGCCTGGCCCCCTTAACATAGAACCACGCCTGCTAACCTGTAGGCTCCA
CTGGGACCTGCTGTCTGTCCCGCTGACCCTGGGGCCTGGAGCAGCACCAGCCCCAGGGTGTGGGCTGGGACC
TGGGCCAGAAGTGAAGCCCTCTGCAGGCATTTGGCTGCCCTGGGGGCCCACTGCCTAGGGAAGAGGACAGGTGGG
GCCAGCACCTGTGCCACCTCCCCCCTCCACACACCATCCTTCCCCCTCACTTTGCAGAGTATTTTCTTTTTT
TTTTTTTTTCTTAAAGACGGAGTCTTGCTCTGTGCGCCAGGCTGGAGTGAGTGGCCCCATCTCTGCTCACTGCA
AGCCCCGCTTCTGGGTTCCCGCCATTCTTCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGCGCCACCACC

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FIGURE 4721B

ACGCCCAGCTAATTTTTCTGTATTTTAGTAGAGATGGGGTTTCACCATGTTAGCCAGGATGGTCTCG

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FIGURE 4722

MMKFRFRRQGADPQREKLKQELFAFNKTVEHGFPNQPSALAFDPELRIMAIGTRSGAVKIYGAPGVEFTGLHRDA
ATVTQMHLTGQGRLLSLDDSSLHLWEIVHHNGCAHLEEALSFQLPSRPGFDGASAPLSLTRVTVLLVAASDI
AALGTEGSSVFFLDVTTLTLLLEGQTLAPGEVLRSPDDYRCGKALGPVESLQGHLRDPTKILIGYSRGLLVIWNQ
ASQCVDHIFLGNQQLES LCWGRDSS TVSSHSDGSYAVWSVDAGSFPTLQPTVATTPYGFPCKAINKILWRNCE
SGGHFIIIFS GGMPRASYGDRHCVSVLRAETLVTLDFTSRIIDFFT VHSTRPEDEFDDPQALAVLLEELVVLDLQ
TPGWPAPVAPY LAPLHSSAITCSAHVASVPAKLWARIVSAGEQQSPQPVSSALSWPITGGRNLAQEPSQRGLLLT
GHEDGTVRFWDASGVALRPLYKLSTAGLFQTDCEHADSLAQAAEDDWPPFRKVGCFDPYSDDPRLGVQKVALCKY
TAQMVVAGTAGQVLVLELS DVPVEQAVSVAIIDLLQDREGFTWKGHERLSPTGPLPWPAGFQPRVLVQCLPPAA
VTAVTLHTEWSLVAFGTSHGFGFLFDYQRKSPVLARCTLHPND SLAMEGPLSRVKS LKKS LRQSFRIRKSRVSGK
KRAANASSKEANAQLAEQACPHDVEMTPVQRRIEPRSADD SLSGVVRCLYFADTF LRDGAHHGPTMWAGTNSGSV
FAYALEVPAAAVGGEKRPEQAVEAVLGKEVQLMHRAPVVAIAVL DGRGRPLPEPYEASRD LAQAPDMQGGHAVLI
ASEEQFKVFTLPKVS AKTKFKLTAHEGCRVRKVALATFASVACEDYAETCLACL TNLGDVHVFSVPGLRPQVHYS
CIRKEDISGIASCVFTRHGQGFYLI SPSEFERFSLSARNITEPLCSLDINWPRDATQASYRIRES PKLSQANGTP
SILLAPQSLDGSPDPAHSMGPDTPPEPEAALSPMSIDSATSADTTLDTTGDVTVEDVKDFLGSSESESEKNLRNLA
EDEAHACAILIK

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FIGURE 4723A

GAGGATGCAGAGTGGGAGACCTTAAACCGTCTGATCTGGCTGCTAAAGCGAGTGTCTGACGACCACCCATTAAC
ACCAGCGAGTAGCGTTTGCTCACGGCTTTAGGATAAGAAGCCTGGAATGGTCCCCCTCCGCCGGGAGAAGAAAG
CCAGACGGTCATCCTTCCACCTGGCTGGCAGAGCTACCTGTGCCTCAGGGCCGGCGGTACTATGTCAACACGAC
CACCAATGAGACCACCTGGGAACGTCCAGCAGTTCTCCTGGGATTCCAGCCAGCCCTGGCTCTCACAGGAGCTC
TCTGCCTCCAACAGTGAATGGATACCACGCATCAGGGACCCCAAGCGCACCCCTCCAGAGACTGCCCACATGAGTGT
CCGAAAATCCACCGGTGATTCCCAGAACCTGGGATCCTCATCGCCAAGCAAAAAGCAGAGCAAGGAAAAACCCAT
CACAATAAACTGTGTGACGTTCCCTCACCCAGACACGATGCCGGAACAGCAGCTGCTGAAACCAACCGAGTGGAG
CTACTGCGACTACTTCTGGGCTGATAAGAAGGACCCCCAAGGCAACGGCACCGTGGCTGGGTTTGAAGTACTGCT
CCAGAAACAGCTGAAGGGCAAACAAATGCAGAAGGAAATGTCAGAATTCATCCGGGAAAGGATAAAGATTGAAGA
AGACTATGCGAAGAAGCTTAGCTAAGCTCTCTCAGAACTCCTTGGCTTCACAGGAGGAAGGCTCCTTGGGAGAGGC
GTGGGCCCAGGTGAAGAAGAGCCTGGCGGACGAAGCAGAAGTTACCTCAAGTTCTCTGCCAAGCTTCACAGCGA
GGTGGAGAAGCCCCTGATGAACCTCCGTGAGAAGTTCAAGAAAGACATGAAGAAGTGCGACCAACACATTGCCGA
CCTTCGCAAGCAGCTCGCCAGCCGCTATGCCTCGGTGGAGAAGGCCCGGAAAGCCCTCACAGAGCGGCAGAGAGA
CCTGGAGATGAAGACCCAGCAGCTGGAGATCAAGCTGAGCAACAAGACAGAGGAGGACATCAAGAAGGCGCGGAG
AAAGTCCACACAGGCTGGAGACGACCTCATGCGCTGTGTGGATCTCTACAACCAGGCCAGTCCAAATGGTTTGA
AGAGATGGTGACCACCACATTGGAGCTAGAGCGGCTGGAGGTGGAGAGGGTAGAGATGATCCGGCAGCACCTGTG
CCAGTACACGCAGCTGCGGCATGAAACAGACATGTTCAACCAAAGCACAGTCGAGCCCGTGGATCAGCTGCTTCG
AAAAGTGGACCCGGCCAAAGACAGGGAGCTGTGGGTGAGAGACACAAGACGGGCAACATCCGCCCTGTGGACAT
GGAGATCTAGATGGGCCTGTGCAGCTTCGGGGGGTCTGCTGGGXGAXXGGGGGGXCTGGGCTCCCACCATGGG
GCCCATGCCGAGTGGATGCCCCCACCCTCTCTCTGGGCCACTGAGGAGAGGGGAGAGAGCTGGTGATTCCAGA
AGGGTGACCCGGACAGCCTAGCTGGGGGCTCCCCATATTCCAGGCCCGAGAAGACAGACCCACAGCCCTGCCCT
TGTCTCTGAGGCTGAAGACCCCTGACTCCCATGCTGTGCTTGCCGCTCTGAAACAAACAGAGGCTGGAACCTTG
TGGTCTTTGCCGAGTTTTGTAGGGGTCACTGTACATGCTTGTGCCCTGGAAGCCCCAAGGCTCTTCTCCAGCT
GGCTCCCTTGTCTCCAGGGCTTTGGAGGATCAGGGTAGGGAGGGCTGTCTCTAAGCCAGGTGTCTCAGGATCAGA
ATCATGGGTAGAAGGTGCCATTACAGTACAGCGCACCCAGAACTCCTTTGCAGCCCTCCTTTATTTTTTTC
CCATTGCAATCTGGGAGTCCACATCTGGCTTTCTCAGCCACTGTTTATCACCAGGGGTTTTAGGAGGAAGGCTTG
GCTCCTGTCTTCCAGACCCACCATGCCTGGAGAGGTGAGGATGGAATACCTCATTCGCAAAATTAGCCCCAAA
TTGAGCGCTGAATCGTGTCCCATGAGATCAGGCGCCATCTGTAAAGTCTCCTCTGGAATGCCAATCCATCCTTC
CCCCAGCTGTCTTCTCGGGGAGGCCCTGCCCCACCCTGCCAGCCCTTCCAGTCTCATTAGAGGAAGCTTTCC
AAAGTTCTCAGTTATCAAGACCTCATCCAGCTCGTCCAAAGGCTTCAGGGATGGAACAAACCAGCTCGTCTCAG
AGGCCAGCAAGCTGGGGCCTGTCCGCCACGGTGCCCTGTGCACCTTTGGGCTGCCCTGGCCCCACTCTCCCGGG
CCGCCCACCACAGGCTCTTAATGGGGCCGGGTGAGTCTTACATGTGAGATGGGTTAGGGCAAGTCTTTGCCATCC
CCCAGATGGCTCTGTCTTCTTGTGTATGGCAGGGCTGGGACTGCTGTCCCTTGTACAGTTTTCTGTCACTGGTGG
GCACTGGACAGGCATAGCAGACTCTTGTGGCCACACTAGGTTGTGCCTTTCAGGCAGTGTCCCCGCCACCTTT
GCTTCCCCTCCTTCTGGACATTCCAGAGCCCTGCACCAACCCCTTACTTGGTGTCTGCACCTCCTTTCCCTCTC
TCCATCTTCCAATCCCTGGAAGTCTGGTCTGAGTGTGACTTGGGAAGCTTTCAGTGTGTGTGTTTGGCCCAGC
TCATTACTTTCTCCCTTTCTCTACCACAGCAAACACATTCTCCACCATGTGAGTCTAAAGAGTCTAAAGGGGCCG
GGAGAAGCATGAGCGAGGGGAGATTCTAGTCGGGAGCCCATGCCCTGGAATCCATCTTTCTTCTATCTTTCCCA
TTGACCACCTTTGGGTTTGACCTGCACATCTGCAGTGAGGGCAGAATCAACAAGCACAACCTCACTGGTCTTTCAG
TCAACGTGCTAGAAACCGATGACTTATTAATCTCTAATTTTTTGGCGCCTCTTTCATTGAATGAGAATTGCTTTC
GTATAGTTTACATTAGAAAAATGCCTAATACTAAAGTAAACCAAACGTTGTCACTTTTCTCTGTCTTGTGAAA
CATTGCAACCAAAAAGGTGAGCACAAGGCCCTTACCTACGTGAAGACCTCCTGGTAGGATCTGTCCATGGGATG
GAGAACCCTCTGTCCAGATCTGGGGTTGGGTGATGACACCAGCTACCAATTTTAGAATATTATTTCTTGGTTTC
TTTATGAAAAATGGGTGCTAGTGGTAATTGCTTTGTGGCTTAGTAACTACTCTGTGGATGATTTCCAAACATTC
AAAGCCAATAGCCTTGTATTATAACAAGATATTTTGTGACAAATATGGCTCATTGACTTTTCCATTACATCTGAGG
ATTCCAGAGTCTCTGTTCATCCCTGGGATAGAGTGAGCCCTCTTGCCTCTTCCAGGGTAGCTCAGGTGGCCCCA
GTTTGGGCCAGTCCATTTTTGGAGGTCACTCTTTCCCCCTCATCCCTCACCTCCTTCTCTTTACCCCCCTCAC
GTACTTCTTTCTTTCTTCCCTCTGTTATTTCATTATCAAGCAGGTTAAAGCCATTGTGCTAAGATCTAATCTGA

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FIGURE 4723B

GGACACTATAATGGCCCTGTCGTCAGGGAAGCCCGTGATCGCTCGTTTTTCAGGGGTCTTACCGGTCAGCAACCTT
GGCATTGATACATAGGCACTCTACAGAATTTAAGTTTTTCAGAGGTAAGTCTGTTGTTCTGATTAATCTGCATTCA
TTCAGCGAATGCTCAAGACAAGCCAGGCATGCTGAGAAGCGGCGCTCTAGTTGTATGTAAGATGGGCATTCTCTCT
GCTCTCTCTATTCTCCATGTCGACTGAGAAGAGTATAATAAGAACATTGTACCCTCTCCACACTTAACCCTCTG
GGATTCTTTATTATAATATAAAACCACCGTCGTGAGGCATTTACCTGTTGGATGGAAGGTAGACAGCAACAAGATT
TTAATCACCTGGTCACCAGACCCTCACGGCCCATATCCAATTCGAATTTTCAGAAATTTCTCTGTTTGCTTTAAAT
AACTCTTTACAAATAAGGGTCGGGCACGGTGGCTCACGCCTGTAATCCCAGCTCTTTGGGAGGCCGAGGTGGGCA
GATCACGAGGTGAGGATCGAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTGCTAAAAATACAAAAAT
TAGCCAGATGTGGTGGTGACACCTGTAGTCCCAACTATTCCGCAGGCTGAGGCAGTAGAATCGCTTGAACCTGG
GAGGCGGAGATTGCAGTGAACCAAGATCGGGCCACTGCACTCCAGCTTGGGTGACAGAGCAAGACTCCATCTCAA
AAAAATTATAAAATAACTCTTTGCAAATAGGAAAGTGAAGCTCAAGGGTAACCAGTGAGGCTATGAAATTGCCAGT
GAATTAAGACCAGGGCTAGAGTCAACAGTCCAGAACCCTATCCGTATGAACAGGGGCCCGTTCTGGTTGAAAT
CAAGGTTAGGATGCAACTGAGAAAATAAAAGACTGCATTTGGAGAGGCAAGCACGCTATCCGGGTTGTTGTTTT
GTTTTATGTCTTGGTGCTTAGGTGAGGACTTAGCTGGGTTTTATTCAAAGTGGGCGGGTCTGGGCTATTCTTGAGA
ATGTCCCTTCCATTTCTGAGAACAAAGTCAGCCCTTCTACCTGCCTCCACCCAGGAGACTGATGCACAAGATCTG
TTTGTGAAAGCCTGATTTAAAAAGAAAAAAAAAATTCCTTAAGCCAAATGGTGTTCGAAGTTGGTTGCTGTGACA
ACCTCCAGGAAGAGCCACTTGTACCTCTATTCTTTCTAGTGCTTTTCAGTCAGTGGCAACACATAGGCCCTTG
GACCGTGGGGATGGCGGCCCTGAGATTCTGTCTAGTGGGACCACCTGGGCCTCCTTTCTACCTCCACTCAGCACC
CTGTTGGCCAAGGAGAATTTCTGCGGTGGGAGGCAGTGCTCTGCTAGTCAGGATTGATAAACAGCTGGGCACACC
GAAACAGTGATACCAACGAATTCACCAACCAGGGGTTTTCTTTCCCTACCCTTTGTGAAAACCAATCAATTACTAGA
TGAGTGGATGGATGCAGAAAAATCTGGGCTGAGCCAAAGTCCCTTTTGAAAATACAAGCCATAACATTCGAAGGA
CATCAGCGACCTTGGCTTGTTTAGGTGATTTTACTTCCAGCTGCAGGTAGTCTTGACAAGGAGTGTTTAAACAGA
AGGCTCAAGATGCATTCCTTGTGTAGGTGCGAGAGAGCACTTCTAATGTTAAGTGGGGTACAGATCAGCTGCCCC
CCCACGTAGCCTGGACATCGTCTTATCCCCATAATCTTGCCTACCCTTACAAGGCCATCGCCACCACCTTTTCC
CAGGTTTTATTGAGGTATGATTGACATCCAGTAAATTCACCCTTTGGAAATATACAGCTCTGTGAATTTTGACAA
ATTTAGTGTCTTGTGACCATCACCAAGATCAACCTGTTTTTAACCCTCCAAAAATTCCTTCTCTGCCCTCTT
TCCCTGGCAACCCTGATTGATTATCTGATCCTATAATTTTGCTTTTCTAGAATGTCATATAAATGGAGTCACAC
TGATGTGCGCTTTTGGTCTGGCATCTTTCCCTCAGCTTAATGCTTTTGAGTCATTCATAGATGTGCGGTGTGGT
TTGTTCCCTTCTCCTTGCCGGGAAGTATTTTCATTGATGGGCGTACTACTCTGCTTCTTTATTTTACACTGAGCC
TTTTCGCCCTGGAAGTTCTTGCGCCAGGGTCTTCAACTTGTTTGACGACCCTTCCAGCTTGCTGCTTCTCTCAG
TTCCCCAGGCTCCTCCTCCAAATGCCAGCTGTGCCACAAGCTGTTCTTAGGGCTCACACTCGCCTTTTGGCGCG
TGGTGGGTTTTTGGTAGTGAGAAAGAATCCAGGGATGGGAGGGGAAGGGACGGATGGGTGCTCAATTGCTGCTC
ACGTCTGCTGCAACCTGAAGCTTGCATCTCAGCCAGCAGATCTGCTCCCTTCTGGGACCCAGGCTTCAGTGTAC
ACGGTCTTGGCTATGTATTGGGCGTTGGAGGCTTTGAAAGGCGAGCAGAAGCAGCATGGACAAGAAGGCTGGGG
CTGGCCCTGGGGCTCATCATGATGCTTTTCTGGATCTGTTGCTTCTATCTGCAAGCTGAGGGTGTGTTCTAGAT
GAGTGTCTCAGGCCACCGGCAACTGCATGTACCTCCTCCCTTTCTCATTTCGAATGATGTACCTGTACACGTGT
TCATGCTGTGTCTGGCTCTCATCTGCACAATCGTGATAGAATTGCCTCAAGTCTTGGTGAGAGAGATGCCGTGG
TACTTTTTCCATTTAGATTCAAATGGAGCTAAATTAAGAGTTTTATGAGCTGTTAAGAATGAGGTAGTTTCTCCT
AGGACCCCCCAAAGACAGTGCAAGTAATGACCGTTTGGATCTCATTGCTGATCTTTGATAGTATGTTCTGGAGT
CTACTCCCCAGGAGCCAGGACAGGCGTGAAGATGGAGTCTTGTGCGAGCTGGAGCCTTGCTAGCTGGTGATCA
CACAGCCTGGCCTGTACCTGCACCCCACTGGATGGTGGTACATGGTGGCAGGGACAGGACCACACCCAGTTAAGG
CCAGACCAGGCTGAGTGTGACCCCTGAGGTAAACACTCCACTAAGCTGTGTCTTGTTCATGCCCCCTGCTCAGTG
AAAGGTGAGTCCCAGACAGTGGGTACCTCTCTATGCCAACCAGAGACATTTCTGGATCCAGGCCAGGTGAAG
ATTAGGGCCAGGAAGCCTGAGCCCCCGGGGCTCAAGGTAGGGAGCCGAAGAGGCTGCCAGGACTCTGCTGGGTT
GAAATTTGCCGGGGAGGACTCTTGTCTCCCCCTCAGGAGTATTTTTGTTGAGGCTTTCTGGAGGTGAAGAAGCA
ATTCCCATTCAGCAGGTTAGAGCGAGAATCAGACAGAGGGCAAAAACCAATTCGCTTCTCCCCACGTTCTAAAT
GCTGGGGCATGGCTGTGAGGAGGCTTCTGGGAGGTGTCTCTGGGGTGGGGTGGGTTGGGGCGATGGCCTTT
GGAGATTGCGTGTGGTGTTCAGGACTGTTCTTGGTGTGTTGAGGGAACTTTAGTGGGATTGCAGTGGAATGTAA

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FIGURE 4723C

GGTCAGGGGCACGTGGGTGCTCTCTCGGGGTGGGGTGACTGGGAGACCTAGAGGGAAAGCCTGCTATGCAGGGGGA
GAGCACAGGACTGGCCCTGCTCTGCGGCCTCCTTTGTCCCATACCTGAAGTTAAGTCACATCCCCTGTCGGGGAC
CTCCGTGCACTCATCTGTCAAGTGGGGGCGCTTCCCTTCCAGCATCACCTGCAGCAGACGGGCTCTCGGGAGTCG
TGGGTTCCAGGCAGCTGTGTGGACCCAGGGACAGACATTCAAAGGGACGCCAGCCATCCTTAGTGACAGGGGCCC
CAACTTAGCATCCCCTTCCCTTCCGTTAGGAAGGAGATGACCGGAAGCAACCCCTTCACAGACACGAGCACATCGG
CAAACCCCTATGAAAGTGGAATTTTCTAACAAAATAAACTTGCTTGTTTGATCTGTTTTCTGTAACTTTTGCTAAA
TACTTTATACATTTTTTCATGTTAAAGAGCCGTGTCTCCCGCCAGCACTCCTCACCCCGGTATGAATGTGTTTCCT
CCACATTGTATATCCTTCCACCCTCTGGCTGCCTAGATCAGTAAATAAAATTGATGTAATATAATTTATAAGTAA
CACTGTTGAAACCCCTGATCCAGTGGAGGCTGTAACCCACCTGCCCCCGCACCAACCCCTGACCCCTGTTACCG
CATTTGTGTGTATTAATGCTGAAGAATTAAATGTTTAAAGAGTTTAAATTTTGAAGGC GTTTGCTATATACAGTT
GTCCTGCATTATTATAAAGAGTTTTTCAGGAAGTT

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FIGURE 4724

TCTTCCACAGGAGGCCTACACGCCGCCGCTTGTGCTGCTGCCATGTCTCTAGTGATCCCTGAAAAGTTCCAGCAT
ATTTTGCGAGTACTCAACACCAACATCGATGGGCGGTGGAAAATAGCCTTTGCCATCACTGCCATTAAGGGTGTG
GGCCGAAGATATGCTCATGTGGTATTGAGGAAAGCAGACATTGACCTCACCAAGAGGGCGGGAGAGCTCATTGAG
GATGAGGTGGAACGTGTGGTCACCATTATGCAGAATCCACGCCAGTACAAGATCCCCGACTGGTTTTTGAACAGA
CAGAAGGATGTAAAGGATGGAAAATATAACCAGGTCCTGGCCAACGGTCTGGACAACGAGCTCCGTGAAGACCTG
GAGCGACTGAAGAATATTCGGGCCCATAGAGGGCTGAGTCACTTCTGGGGCCTTCGTGTCCGAGGCCAGCACACC
AAGACCACTGGCCGCTGTGGCCGCACCGTAGGTGTGTCCAAGAAGAAATAAGTCTGTAGGCCTTGTTTGTTAATA
AATAGTTTATATACC

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FIGURE 4725

GCTGTCCTGAGCCTGAGTACTCTAGCTGCCTTGTCGCCATCGCATCTGGCTGCCATCCAGCGCCAGCACACAGTA
ATGAGTGGCCGAGCTTCCTCTGGGAGGGAGGAAACAGTTAAAATCTTGACAGCAGCTGCAATCATCTAGGCGTGGT
TCTCTTGCTGACTTGGGCTGCACAGATCCTGGGCCAAGGGACAGAAGAAAGACAGCCTAGGAGCAGAGCCTCCC
AGATGGCTGAGTTGGATCTAATGGCTCCAGGGCCACTGCCCAGGGCCACTGCTCAGCCCCCAGCCCCCTCTCAGCC
CAGACTCTGGGTCACCCAGCCCAGATTCTGGGTGAGCCAGCCCAGTGGGAAGAAGAGGACGTGGGCTCCTCGGAGA
AGCTTGGCAGGGAGACGGAGGAACAGGACAGCGACTCTGCAGAGCAGGGGGATCCTGCTGGTGAGGGGAAAGAGG
TCTGTGTGACTTCTGCCTTGATGACACCAGAAGAGTGAAGGCAGTGAAGTCCTGTCTAACCTGCATGGTGAATT
ACTGTGAAGAGCACTTGACGCCGCATCAGGTGAACATCAAAGTCAAAGCCACCTGCTGACCGAGCCAGTGAAGG
ACCACAACCTGGCGATACTGCCCTGCCACCACAGCCCAGTGTCTGCTTTCTGCTGCCCTGATCAGCAGTGCATCT
GCCAGGACTGTTGCCAGGAGCACAGTGGCCACACCATAGTCTCCCTGGATGCAGCCCGCAGGGACAAGGAGGCTG
AACTCCAGTGCACCCAGTTAGACTTGGAGCGGAAACTCAAGTTGAATGAAAATGCCATCTCCAGGCTCCAGGCTA
ACCAAAAGTCTGTTCTGGTGTCGGTGTCAGAGGTCAAAGCGGTGGCTGAAATGCAGTTTGGGGAACTCCTTGCTG
CTGTGAGGAAGGCCCAGGCCAATGTGATGCTCTTCTTAGAGGAGAAGGAGCAAGCTGCGCTGAGCCAGGCCAACG
GTATCAAGGCCACCTGGAGTACAGGAGTGCCGAGATGGAGAAGAGCAAGCAGGAGCTGGAGAGGATGGCGGCCA
TCAGCAACACTGTCCAGTTCTTGGAGGAGTACTGCAAGTTAAGAACACTGAAGACATCACCTTCCCTAGTGT
ACGTAGGGCTGAAGGATAAACTCTCGGGCATCCGCAAAGTTATCACGGAATCCACTGTACACTTAATCCAGTTG
TGGAGAACTATAAGAAAAAGCTCCAGGAGTTTCCAAGGAAGAGGAGTATGACATCAGAACTCAAGTGTCTGCCG
TTGTTTCAGCGCAAATATTGGACTTCCAAACCTGAGCCAGCACCAGGGAACAGTTCTTCCAATATGCGTATGACA
TCACGTTTGACCCGGACACAGCACACAAGTATCTCCGGCTGCAGGAGGAGAACCACAAGGTCACCAACACCACGC
CCTGGGAGCATCCCTACCCGGACCTCCCGAGCAGGTTCTGCACTGGCGGCAGGTGCTGTCCAGCAGAGTCTGT
ACCTGCACAGGTACTATTTTGAGGTGGAGATCTTCGGGGCAGGCACCTATGTTGGCCTGACCTGCAAAGGCATCG
ACCGGAAAGGGGAGGAGCGCAACAGTTGCATTTCCGGAAACAACCTCTCCTGGAGCCTCCAATGGAACGGGAAGG
AGTTACGGCCTGGTACAGTGACATGGAGACCCCACTCAAAGCTGGCCCTTCCGGAGGCTCGGGGTCTATATCG
ACTTCCCGGGAGGGATCCTTTCTTCTATGGCGTAGAGTATGATACCATGACTCTGGTTACAAAGTTTGCTGCA
AATTTTCAGAACCACTATGCTGCCTTCTGGCTTTCCAAGAAGGAAAACGCCATCCGGATTGTAGATCTGGGAG
AGGAACCCGAGAAGCCAGCACCGTCTTGGGGGTGACTGCTCCCTAGACTCCAGGAGCCATATCCCAGACCTTTG
CCAGCTACAGTGATGGGATTTGCATTTTAGGGTGATTTGTGGGCAGAAATAACTGCTGATGGTAGCTGGCTTTTG
AAATCCTATGGGGTCTCTGAATGAAAACATTCTCCAGCTGCTCTCTTTTGCTCCATATGGTGCTGTTCTCTATGT
GTTTGAGTAATTCTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCACTGTTGCCAGGCTGGAGAGCAGTGGCGGA
TCTTGGCTCACTGCAAGCTCCGCCTCCCGAGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTA
CAGGTGCCTGCCACCACACCCAGCTAATGTTTTGTATTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCA
GATCTCAAACCTCTGACCTCGTGATGCACCCACCTCGGCCTCCCAAAGTGCTGGGATTACATGCGTGAGCCACTG
CGCCCTGCCTGTTTGTAGTAATTTTGGACCAAAATCTCCCTCATCTTCTAGTGCCATTCTCCTCTCTGTTTCA
GTAAATGTCACACTGTGCCAGAATGGATGACCAGGAACCTTAAAGAGTGGCTGAAAAGATTGCAGAGTTATCAT
AATAAATTGCTAACTTGCGT

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FIGURE 4726

MAELDLMAPGGLPRATAQPPAPLSPDSGSPSPDSGSASPVEEEDVGSSEKLGRETEEQDSDSAEQGDPAGEGKEV
LCDFCCLDDTRRVKAVKSCLTCMVNYCEEHLQPHQVNIKLQSHLLTEPVKDHNRWRYCPAHHSPLSAFCCPDQQCIC
QDCCQEHSHTIVSLDAARRDKEAELQCTQLDLERKLKLNENAIISRLQANQKSVLVSVEVKAVAEMQFGELLAA
VRKAQANVMLFLEEKEQAALSQANGIKAHLEYRSAEMEKSQELERMAAISNTVQFLEEYCKFKNTEDITFPSVY
VGLKDKLSGIRKVVITESTVHLIQLLENYKKKLQEFSEEEYDIRTQVSAVVQRKYWTSKPEPSTREQFLQYAYDI
TFDPDTAHKYLRLQEENRKVTNTTPWEHPYPDLPSRFLHWRQVLSQQSLYLHRYFFEVEIFGAGTYVGLTCKGID
RKGEERNSCISGNFWSLQWNGKEFTAWYSMETPLKAGPFRRRLGVYIDFPGGILSFYGVEYDTMTLVHKFACK
FSEPVYAAFWSKKENAIRIVDLGEEPEKPAPSLGVTAP

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FIGURE 4727

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGGCCGCAGCCATGAACTCCAACGTGG
AGAAACTGCCCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTACCATCGAGGGCCCTGAAGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAGGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCCTGCTCTTGGAGAACTCCGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCCAGCGGCAGGGCCGAAGCCGGGCGGGCCCTGGCCAGTGGCACTGCAGCTTCCTCCACCG
ACCTTGGGGCCCCAGGGGGCCTGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGCGGCTGTAGTGGGCTCTCTTCCTCCTTCCAC
CGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGA
GGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

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FIGURE 4728

GGGCGGTTGGCTTTGTTGGGTGAGCTTGTTTGTGTCCCTGTGGGTGGACGTGGTTGGTGATTGGCAGGATCCTGG
TATCCGCTAACAGGTCAAAATGCAGATCTTCGTGAAAACCCCTTACCGGCAAGACCATCACCCCTGAGGTGGAGCC
CAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAGGAAGGCATTCCCCCGACCAGCAGAGGCTCAT
CTTTGCAGGCAAGCAGCTGGAAGATGGCCGTACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCACCT
GGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACCCCTGGAAGTGGA
GCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACCAGCAGAGGCT
CATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCA
CCTGGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACTCTGGAAGT
GGAGCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAAGATAAAGAAGGCATCCCTCCCGACCAGCAGAG
GCTCATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCT
GCACCTGGTCCTGCGCCTGAGGGGTGGCTGTTAATTCTTCAGTCATGGCATTGCGAGTGCCCAGTGATGGCATT
CTCTGCACTATAGCCATTTGCCCCAACTTAAGTTTAGAAATTACAAGTTTCAGTAATAGCTGAACCTGTTCAAAA
TGTTAATAAAGGTTTCGTTGCATGGTA

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FIGURE 4729

MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLR LRG
GMQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLR LRG
GGMQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLR L
RGGC

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FIGURE 4730

AGGTAGGCTCTCTAGGAATCTGGGAGTAGTAGCTGGGGGGCAAGAGCAAATAAAGAGCTCGAGCTTCTGTGGTCT
CTGGGGAGATGTTCCCGGGAAGCCTGTCTAGAGGGCGGAGGGCAGCTGTTGAGATGGCGTGGCTCCCGGCTCCT
GCGCCCGCGTGGCTTTCGCGGCGGGCGCTGCGGCCCCGGTATTGGACAGCCTGGCAGGGCAGCGCGGGGCCGAATC
CGGCTGCCGTGGCTGAGGCTCATGGATCACTCTTTTGTGGTAGGGCCACATCTGCCAGAGCCTGGAGTCTGCGAA
GGCCGGGACCCGGTTCCCGGGCCACAGTGGGGGTGTGCAAACCCGAGAGAACTGGATTGCGTACCCACTGCAGA
GTGCTGAAGACGGGGTAGCCACGAGGTTGCAAATTCGTGAAGAATCAGCATCATGTTTGGCAGCTGAGTATTGGA
GCCAGGAGCCTGCCATGAGGTTTTGAGAACAGAGTGCTGTTTTAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAA
GGTTATATTTCCAGAGGATGTCAGTCCCAAGGACCAGTAGCTGCCATCAGTTTGGATTCTGAAAATAACTGGCA
TCAACACTGGGTGTAGAAACATGCTTGCTTATGTATCAGAGGACATGCTCAGCAGATCCAAGAGATATATTGG
CAACTTTTTCTAGAAAAGGCACATTGGGTATCATTACATTCTTGAGT

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FIGURE 4731

MFPGSLSRGRRRAVEMAWLPGSCARVAFAGAARYWTAWQGSAGPNPAAVAEAGSLFCGRATSARAWSLRRPG
PGSPAHS GGVTRENWIA YPLQSAEDGVATRLQIREESASCLAAEYWSQEPAMRF

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FIGURE 4732

TCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACCATGACCACCTCCATCCGCCAGTTACCTCCTCC
AGCTCCATCAAGGGCTCCTCTGGCCTGGGGGGCGGGCTCGTCCCGCACCTCCTGCCAGCTGTCTGGCGGGCTGGGT
GCCGGCTCCTGCAGGCCGGGATCTGCTGGTGGCCTGGGCAGCGCCCTCGGGGGTAGCAGCTACTCCAGCTGCTAC
AGCTTTGGCTCTGGCGGTGGCTATGGCAGCAGCAGCTTTGAGGGCGTTGATGGGCTGCTGGTTCGGAGGTGAGAAG
GCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCGACACT
GAGCTGGAGGTAAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCCGCCGTGACTACAGCCAGTACTAC
AGGATAATCGAGGAGCTGCAGAACAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACATATTGAC
AATGCCCATCTGGCTGCTGCTGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGTGCCTGAGTGTGGAGGCC
GACATCAATGGCCCGTGCAGGGTGTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCACATTGAGAAC
CTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCCGCGAGGCCAGGTGGGCGGT
GAGATCAATGTGGAGATGGGCGCTGCCCCAGGTGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGAGCAGTAT
GAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAGCTGAACCGCGAG
GTGGCTACCAACAGTGAGCTGGTCCAGAGCGGCAAGAGCGAGATTTGCGAGCTCCGGTGCACCATGCAGGCCTTG
GAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGCTAC
TGCATGCAGCTGTCCAGATCCAGGGGCTGATCGGCAGTGTGGAGGAGCGGCTGGCCCAGCTTCTCTGCGAGATG
GAGCAGCAGAACCAGGAGTACAAGATCCTCCTGGACATGAAGATGCGGCTGGAGCTGGAGATCACCACCTACCAC
CGCCTGCTGGAGGGCGAGGATGCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCTGTCAGGTGCCTACC
ATTGTGGAAGAGGTCCAGGATGGTAAGGTCACTCTCCTCCCGCAGCAGGTCCGCCAGACCACCCGCTTGAGCACTC
AGCTTTCTTGGCCGGCCCCCAGGAGGCAGGGAGGCAGCGGTCCCATCTGCCCCGCGGTCTCCGGCCTCTCCACC
CTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCCTGCGTGATGACAATAAAGCTCGTTGACTCAGCT

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FIGURE 4733

MTTSIRQFTSSSSIKGSSGLGGSSRTSCQLSGGLGAGSCRPGSAGGLGSALGGSSYSSCYSGGGGYGSSSFE
GVDGLLVGGEKATMQNLNDRLASYLDKVRAL EEADTELEV KIRDWYQRQAPGPARDYSQYYRIIEELQNKILTAT
VDNANILLHIDNAHLAAADFRTKFETE QALCLSVEADINGPCRVLDELTLARADLEMHIENLKEELAYLKKNHEE
EMNAPRGQVGGEINVEMGAAPGVDLSRILNEMREQYEKMAEKNRKDAEDWFFSKTEELNREVATNSELVQSGKSE
ISELRCTMQALEIELQSQLSMKASLEGNLAETENRYCMQLSQIQGLIGSVEERLAQLLCEMEQQNQEYKILLDMK
MRLELEITTYHRLLEGEDAHLTQYKKEPVTTQVPTIVEEVQDGKVISSREQVRQTTR

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FIGURE 4734

CTTTCGCTCGGCTGTTTTCTGCTCAGGAGCCGCGAGGGCCGTAGGCAGCCATGACGCCCAGCCGGAATGGCATG
GTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGCCCCGGAAGATC
CGCAGACGTAAGGCCCCGGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCGGGGCCCCATCCGGCCCCATC
GTGTGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAATCTGGAGGAGCTCAGGGTG
GCCGGCATTACACAAGAAGGTGGCCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAG
TCCCTGCAGGCGAACGTGCAGCGGCTGAAGGAGTACCGCTCCAAACTCATCCTCTTCCCCAGGAAGCCCTCGGCC
CCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAAACTGGCCACCCAGCTGACCGGACCGGTCATGCCCATCCGG
AATGTCTATAAGAAGGAGAAAAGCTCGAGTGATCACTGAGGAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGT
ATGGCCCGTGCCAACGCCCCGGCTCTTCGGCATAACGGGCAAAAAGAGCCAAGGAAGCCGCAAGACAGGATGTTGAA
AAGAAAAAATAAAGCCCTCCTGGGGACTTGGAAT

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FIGURE 4735

GAATGGCATGGTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGC
CCGGAAGATCCGCAGACGTAAGGCCCCGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCGGGGCCCCAT
CCGGCCCATCGTGTGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAATCTGGAGGA
GCTCAGGGTGGCCGGCATTACAAGAAGGTGGCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACCA
AACTCATCCTCTTCCCCAGGAAGCCCTCGGCCCCCAAGAAGGGAGACAGTTCTGCTGAAGAAGTGAAGTGGCCA
CCCAGCTGACCGGACCGGTCATGCCCATCCGGAATGTCTATAAGAAGGAGAAAGCTCGAGTGATCACTGAGGAAG
AGAAGAATTTCAAAGCCTTCGCTAGTCTCCGTATGGCCCGTGCCAACGCCCGGCTCTTCGGCATACT

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FIGURE 4736

MAPSRNGMVLKPHFHKDWQRRVATWFNQPARKIRRRKGPASQGAPHRSAPRVGSHPAHRALPHGSVPHEGARRPR
LQPGGAPGWPAFTRRWPGPSAFLWIQTHPLPQEALGPEGRQFC

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FIGURE 4737

GTAGAGTGC GCGACGCTTTTGGCGACCCGACCTCTGGCTAACCTACCCCCGGAGCCATGGCCTCTGCTGGGGTGG
CAGCCGGGCGACAGGCGGAGGATGTATTGCCGCCAACGTCCGACCAGCCGCTGCCTGACACCAAGCCGCTGCCGC
CTCCTCAGCCGCCGCCGGTCCCTGCGCCTCAACCGCAGCAGTCCGCCGGCGCCACGGCCTCAGTCACCTGCCCGCG
CGAGGGAGGAAGAGAACTACTCCTTTTTTACCTTTGGTTTACAAACATCATCAAATGCATGGACAAGGACAGCCCCAG
AGGTCCACCAGGACCTGAACGCCCTCAAAAGCAAGTTCCAGGAGATGCGCAAGCTCATCAGCACCATGCCCGGCA
TCCACCTGAGCCCCGAACAGCAGCAGCAGCAGCTGCAGAGCCTCCGGGAGCAAGTCAGGACCAAGAATGAGCTTC
TGCAAAAGTACAAGAGCCTCTGCATGTTGCAAAATCCCCAAGGAGTAGAGTGAGGCTGACTTCCTTAGAAAGAGGG
GGAAGCCAATGGCCTGTCTCCCCACTACCATCCCCAAACGCTCCTTGGGGCGTGGTTCTGTGGACCCCAGCTCA
GCTCGTCAAGCTGCAGGGGCGGGGCTCCTGTGCTGCTGCGCGCGCTTCGCCTGTGCGGGAGCCAGCGCAGAGCTT
GGCTGCGCCGGGGGTTTCTCGTGTAGATCCATATGTCTAGATGCATAATAACTGGAGTGCTGTGGTGGAAGTC
AGAATGCTCCTGGAGGCTGCAGAGGGGGTGGAGGACTCTCCCCTGCCTCTGGGGAGGGGGCCATCTGCTGCGCCC
GGCCCCACTGACAGATCTGAAGAGCACAGTAGGAAGGGAGGCGGCTCCTCTTTGCTTCCTTCCCTCTCTCTCCTC
CCACCCCCATAGGATCAGTGTGTACCAGGTACACATTGTTTCTGTAAACAGCAGCTTCTTGAAACATTGTCATAG
AATTCAGTGACGAATTAAGCCTGCACTCATATGGCATAGAATTGTGAGAGAATGTTTTGAAAGGCCAGAGGGTG
GCCTTTTTCCCCAAACAGTTTGGTTCCCTTTTATGTTTGAGCCAGTGAAGGGAACACGCTTTGGGGGCTTCAGCC
TAGAGCCCTGCCAGGCAGCCCCCTGGCTCCAGGTTCCCTGCCTCCTAGCGCTCTCCTCGCCTTCAGCTCTTGCTCC
CTTCTCGTTTCATCACCCCTCAGTCAGTGCCCAAGAGTGGCCAAACCGCTTCACATCTGCAGTGCTTCCCCAGGGT
TGACAAGGGGCGCTCCTTTCCACACAGGCCAGAAGAGGTCTTCAGGCGAACCAGCCTTCCCCCTTCTGGCATTTC
AGATTCCCCTTGCTCTGGTTAAAAGGTCTTTCCCTCGTGGCCTTTGCACTTGCGGCAGCAACGTGTACTACACTG
CAGAAGGGTTCAGTATGCACCTTGTTGTTGAGAGAGAGGCAACCCTGGGGGCCAGTTCAGGTGGTCCCCAACCATA
GGCTAGGTCTGAAAGTTACACAGCCAAGTTTGAGCTCTTAAAAGTTGATGAACAGCCTCATTTCCCCAGCTTCCC
TGATTCTTCCAGATGGGACGTTTTATTTGTGTGCTCTCCCTTGACTGTCAGATTGAAGTAAGAGCAGTTCTCTC
CGTTGCCTCTCGAGGAGGAGGTGCGAAGTCCTGGAGTATTGTTTGGGTCTCGGAATGGGCGCATAACCTGCGCTG
ACCAGTTTAGGGGCTTAGCAGATGCCTGCCAGCTGACCTCGTTGGCAGGAGGGTTGGGTGGAGATGTTTTAGCA
GAGCTTCCATTAGTGTAGACCTGTAGCCACCTGTCAGAAGGTGGGTGGCATATTGGGGACCTGGGAATGTGTGAA
GGAGGAGATCAAATTTAGTGCCCTTTGGACAGAAAAGAAGGCTCTGGATTTAAGCGGGTGGTCACCTGTGAGACC
AGGTCTACCTTGGGACTGTTATTTAACTGAATCAGTTATTTCTTGAAATTTACAGTAGTGGGTGGGCTGTTT
TAAGGCTCTGACAGATACCACGAAACATGAAGCACGTGGAACATAAGACCCCCGGGGTCTTTCTGAGTGCAAGG
CTGAAATGGACAAGGGCTCCTCACGGGGGTGGAGGGAGCCGGAGCCTGCCTTGTTTCTTTTCTGACTGTGAC
ATTTTTCAAACACATAATTAAAGGACTTATGCTCTGCTGTCTCAGG

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FIGURE 4738

MASAGVAAGRQAEDVLPPTSDQPLPDTKPLPPPQPPVPAPQPQQSPAPRPQSPARAREEENYSFLPLVHNIKC
MDKDSPEVHQDLNALKSKFQEMRKLISTMPGIHLSPEQQQQQLQSLREQVRTKNELLQKYKSLCMFEIPKE

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FIGURE 4739

GGGGCGACCCGACCTCTGGCTAACCTACCCCCGGAGCCATGGCCTCTGCTGGGGTGGCAGCCGGGCGACAGGCGG
AGGATGTATTGCCGCCAACGTCCGACCAGCCGCTGCCTGACACCAAGCCGCTGCCGCCTCCTCAGCCGCCGCCGG
TCCCTGCGCCTCAACCGCAGCAGTCGCCGGCGCCACGGCCTCAGTCACCTGCCCCGCGCGAGGGAGGAAGAGAACT
ACTCCTTTTTACCTTTGGTTTACAACATCATCAAATGGTTAAGAACCTAGGAGAGGACCAGGCCCCATACTCCCTC
CAGCTTCTCCTCTCAGCCGTTTCAGAGCTGCAAGAGGCCTTGGCGCTCTGGGGCACGCCCCCGTTTCACAGATGG
GGAAACTCAGACCCAGAGCGGGAAGAGGCCTTTCCCAAGACCACAGAGACATTCCATGAGTTAAGCAAACGATT
GAGCCTCGAGAGGTGCGATATCCTTAAGAATGAAGCCAGCTTAGAGACTAAATGCAGACTCTTGTCCAGCGGCTC
AAATGTTTCATCCCAGCGATCTTGAGCAAATTAAATCTCTTTAAGCCGCAAAAAAAAAAAAAAAAAAAAAAA
AAA

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FIGURE 4740

MASAGVAAGRQAEDVLPFTSDQPLPDTKPLPPPQPPVPAPQPQSPAPRPQSPARAREEENYSFLPLVHNI IKW

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FIGURE 4741

GCCCTGCCAGCCCCAGACAAGGGCACAGAAACAGCCAGGCCACACCAACTACAGCAGCTATTCCAAGCGGAAGCG
CCTCACTCGGGGCCGGGGCCAAGAACACCACCTCTTACCCCTGTAAGGGGCGTGCCAAGCGACGACGACAGCAGCA
GGTGCTGCCCCCTGGATCCCCGAGAGCCTGAAATCCGCCTCAAGTACATTTCTCTTGCAAGCGGCTGAGGTGAGA
CAGCCGGACCCCCGCCTTCTCACCCTTCGTGCGGGTGAGAAAGCGAGACGCGTTTACCACCATATGCACTGTTGT
CAACTCCCCCTGGAGATGCGCCCCAAGCCCCACAGGAAGCCTTCTCTCTGCTCTCTTCTCATCTCGTCTCTC
GTTCTCTCTTGGATGCAAGCCGGGGCCTCCCTGGCCACACTCCCTGGAGGCTCCATCCTGCAGCCGCGGGCCCTCCTT
GCCCCCTCTCTCTCCACGATGCACTTGGGGCCTGTGGTTTCCAAGGCCCTGAGTACCTCTTGCCTTGTGTTGCTGCCT
CTGCCAAAAACCCGGCCAACCTTCAAGGACCTTGGGGACCTCTGTGGGCCCTACTACCCTGAACACTGCCTCCCCAA
AAAGAAGCCAAAACTCAAGGAGAAGGTGCGGCCAGAAGGCACCTGTGAGGAGGCTCGCTGCCGCTTGAGAGAAC
ACTCAAAAGGTCCCGAGTGTGCAGCTGCCGCCACTGCCGGGAAGCCCCCAGGCCTGACGGCCAGCTGACCCGGC
CAAGCAGGGGCCACTGCGCACCAGTGCCCCGGGGCCTGTCCCGGAGGCTGCAGAGCTGCTACTGCTGTGATGGCCG
GGAGGATGGGGGCGAGGAGGCAGCCCCAGCCGACAAGGGTCGCAAAACATGAGTGCAGCAAGGAGGCTCCGGCAGA
GCCCCGCGGGGAGGCCCAGGAGCACTGGGTGCATGAGGCCTGTGCCGTGTGGACGGCGGCGTCTACCTGGTGGC
CGGGAAGCTCTTTGGGCTGCAGGAGGCCATGAAGGTGGCCGTGGACATGATGTGTTCCAGCTGCCAAGAAGCCGG
GGCCACCATTGGGTGCTGCCACAAAGGATGCCTCCACACCTACCCTACCCGTGTGCCAGCGATGCAGGTGTCAT
ATTCATCGAAGAGAACTTTCTTTGAAATGTCCCAAACATAAGAGGCTGCCGTAGTAATCCACCCCAACGGCCGG
AGGAGCCGCCGGAGCCCCGCTGCCCGCCCGCCGGAAGGAGAGGAGCCGCCTGCGCAGCCCCCGGGCCTTTGAG
CTGCTCCCAAGCGCTGGTCCAGAGCCGATCCTTGATCCGGGTCCCGGATCGTGGATCCGGCCGCCTAGGGCTCAGA
CTTGGCGCCCCGGGTGGGAGGAAAACCGTTCCGGAGCCGCCTGCTCCCGAACCAGGACGGCACAGGGCGTTCT
TGCCCCACCCAGGGGCCAGGCTTGCGGAGGGGGAGCCCGGAGCGGCCAGACTCCCCGGGGCGCTCAGCCTCCG
GCGAGGGTGGGAGACGGCTTTGTCTGGGGACACTTTCCCTCTGGAATCTCAAGACGACGTGGCACACATTCCAC
GTGGGTGCTGCCGCCACCCAGTCGGTCGTGGCGTGCAGCTGGGAGCCCTGGGCTTGGGGGTGGGGTTCGAAACA
GTACTGGAAGAGGCGGAGGGCGGCTCCTAGCTCCGTGGACTAGGCGGGGGAGAAAGGAAGCCTTTCTGAGAGCGG
GCTAGGCCGGCACTGGAGAGGCCGGAGCCTTTGGAACAAACCGTGCGGAACGCGTCCAGGGGCCTTCCCGCCAG
CCTTTGCCAGATCTCTCGTGCGGTTCCGGGCAAAGCCGGGGTAGACCTGGGCTATGCTCAGTTAGGGGTTCGGGA
TCCCCGAGTGTGGGCGGGACTGGGACACCCTTTGGCCTCTGTTTGTCCCTTTCCAGTCTCCACCCACCCCTG
GAGCCCAGCCTGGGAGCGCAAAACCAAGAAGCGGCCAGAACGCACCTCCGGCTCCGGCGGACGCGCGACCGTTG
TGACACCACAGGGACCGCCGCGCTACTCTGCACGGGAGCAGGGACAGCGCTAGATTTCTGTGTACAAAACCTGTG
TACCCCTCTATATATATGTTACATAGAATGTATATATGTTGGGAACATGCTCGCTTCTCCCGTGTGTCGCCGCCG
TGCGTCGTGCGCCCGCAACAGAGCCCCAACCGGGCCTTTGCCGGTAAGGGGCTACCGCGACGCCACTTGTCCAC
GCAGCCACCACCGGCCCGGGCCAGTCCCTGCCAGTCCGTCCGCCTGTCCGTCCGTGCTCCTCAGCTCTGTCCACGC
TTCGATAGGCCTGACGCAGCCCCCAGCCAGGGCCGCCCTAGCAACTTCTGTACATATGACTGTAAATGGTAA
ACGTGTGTATATATCTGGCCTCGTTATATAGTGTATATATATGTATACATATACATATATATAATATATATGAA
GACTGTAAATGTTAAGACGACTAGTGTCTTATTAGTATATTGCTTCACACTGAAGATTGTGTGTATCGAGCTGT
TTCTAAAAGATGTTTATTTTCTTAAAGAGTAAAAAACAGTCATTGCATTTCAGAAAAAAGTCAA
TAAAGATACAACGATTGTTTTGGAAAA

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FIGURE 4742A

TAACGAGGAACTTTTCGCCGGCGCCGGGCGCCTCTGAGGCCAGGGCAGGACACGAACGCGCGGAGCGGGCGGCGG
CGACTGAGAGCCGGGGCCGCGGGCGGCGCTCCCTAGGAAGGGCCGTACGAGGCGGCGGGCCCGGCGGGCCTCCCGG
AGGAGGCGGGCTGCGCCATGGACGAGCCACCCCTTCAGCGAGGCGGCTTTGGAGCAGGCGCTGGGCGAGCCGTGCGA
TCTGGACGCGGCGCTGCTGACCGACATCGAAGACATGCTTCAGCTTATCAACAACCAAGACAGTGACTTCCCTGG
CCTATTTGACCCACCCCTATGCTGGGAGTGGGGCAGGGGGCAGACCCCTGCCAGCCCCGATACCAGCTCCCCAGG
CAGCTTGTCTCCACCTCCTGCCACATTGAGCTCCTCTCTTGAAGCCTTCCTGAGCGGGCCGCGAGGCAGCGCCCTC
ACCCCTGTCCCCTCCCCAGCCTGCACCCACTCCATTGAAGATGTACCCGTCCATGCCCGCTTTCTCCCCTGGGCC
TGGTATCAAGGAAGAGTCAGTGCCACTGAGCATCCTGCAGACCCCCACCCACAGCCCCCTGCCAGGGGCCCTCCT
GCCACAGAGCTTCCCAGCCCCAGCCCCACCGCAGTTTCTGCTTACCCCTGTGTTAGGCTACCCAGCCCTCCGGG
AGGCTTCTCTACAGGAAGCCCTCCCGGGAACACCCAGCAGCCGCTGCCTGGCCTGCCACTGGCTTCCCCGCCAGG
GGTCCCGCCCGTCTCCTTGACACCCAGGTCCAGAGTGTGGTCCCCCAGCAGCTACTGACAGTCACAGCTGCCCC
CACGGCAGCCCCCTGTAACGACCACTGTGACCTCGCAGATCCAGCAGGTCCCGGTCTGCTGCAGCCCCACTTCAT
CAAGGCAGACTCGCTGCTTCTGACAGCCATGAAGACAGACGGAGCCACTGTGAAGGCGGCGAGGTCTCAGTCCCCCT
GGTCTCTGGCACCCTGTGACAGACAGGGCCTTTGCCGACCCTGGTGAGTGGCGGAACCATCTTGGCAACAGTCCC
ACTGGTTCGTAGATGCGGAGAAGCTGCCTATCAACCGGCTCGCAGCTGGCAGCAAGGCCCCGGCCTCTGCCAGAG
CCGTGGAGAGAAGCGCACAGCCACACAACGCCATTGAGAAGCGCTACCGCTCCTCCATCAATGACAAAAATCATTGA
GCTCAAGGATCTGGTGGTGGGCACTGAGGCAAAGCTGAATAAATCTGCTGTCTTGCGCAAGGCCATCGACTACAT
TCGCTTTCTGCAACACAGCAACCAGAACTCAAGCAGGAGAACCTAAGTCTGCGCACTGCTGTCCACAAAAGCAA
ATCTCTGAAGGATCTGGTGTGGCCTGTGGCAGTGGAGGGAACACAGACGTGCTCATGGAGGGCGTGAAGACTGA
GGTGGAGGACACACTGACCCCAACCCCTCGGATGCTGGCTCACCTTTCCAGAGCAGCCCCCTTGTCCCTTGGCAG
CAGGGGCACTGGCAGCGGTGGCAGTGGCAGTGACTCGGAGCCTGACAGCCCAGTCTTTGAGGACAGCAAGGCAAA
GCCAGAGCAGCGGCCGTCTCTGCACAGCCGGGGCATGCTGGACCGCTCCCGCCTGGCCCTGTGCACGCTCGTCTT
CCTCTGCCTGTCTCTGCAACCCCTTGGCCTCCTTGTGCGGGGCGGGGGCTTCCCAGCCCCCTCAGATACCACCAG
CGTCTACCATAGCCCTGGGCGCAACGTGCTGGGCACCGAGAGCAGAGATGGCCCTGGCTGGGCCCCAGTGGCTGCT
GCCCCAGTGGTCTGGCTGCTCAATGGGCTGTTGGTGTCTGCTCTCCTTGGTGTCTCTCTTTGTCTACGGTGAGCC
AGTGACACGGCCCCACTCAGGCCCCCGCGTGTACTTCTGGAGGCATCGCAAGCAGGCTGACCTGGACCTGGCCCCG
GGGAGACTTTGGCCAGGCTGCCAGCAGCTGTGGCTGGCCCTGCGGGCACTGGGCGGCCCCCTGCCACCTCCCA
CCTGGACCTGGCTTGTAGCCTCCTCTGGAACCTCATCCGTACCTGCTGCAGCGTCTCTGGTGGGCGGCTGGCT
GGCAGGCGGGGAGGGGGCCTGCAGCAGGACTGTGCTCTGCGAGTGGATGCTAGCGCCAGCGCCGAGACGCAGC
CCTGGTCTACCATAAGCTGCACCACTGCACACCATGGGAGACACAGCGGGGCACCTCACTGCCACCAACCT
GGCGCTGAGTGCCCTGAACCTGGCAGAGTGTGAGGGGATGCCGTGTCTGTGGCGACGCTGGCCGAGATCTATGT
GGCGGCTGCATTGAGAGTGAAGACCACTCTCCACGGGCTTGCAATTTCTGACACGCTTCTCTCTGAGCAGTGC
CCGCCAGGCTGCCTGGCAGAGTGGCTCAGTGCCCTCCTGCCATGCAGTGGCTCTGCCACCCCGTGGGCCACCG
TTTCTTCGTGGATGGGACTGGTCCGTGCTCAGTACCCCATGGGAGAGCCTGTACAGCTTGGCCGGGAACCCAGT
GGACCCCTGGCCAGGTGACTCAGCTATTCCGGGAACATCTCTTAGAGCGAGCACTGAAGTGTGTGACCCAGCC
CAACCCAGCCCTGGGTGAGCTGATGGGGACAAGGAATTCTCGGATGCCCTCGGGTACCTGCAGCTGCTGAACAG
CTGTTCTGATGCTGCGGGGGCTCCTGCCTACAGCTTCTCCATCAGTTCAGCATGGCCACCACCACCGGCGTAGA
CCCGGTGGCCAAGTGGTGGGCTCTCTGACAGCTGTGGTGTACCTGGCTGCGGCGGGATGAGGAGGCGGCTGA
GCGGCTGTGCCCGCTGGTGGAGCACCTGCCCGGGTGTGCAGGAGTCTGAGAGACCCCTGCCAGGGCAGCTCT
GCACTCCTTCAAGGCTGCCCGGGCCCTGCTGGGCTGTGCCAAGGCAGAGTCTGGTCCAGCCAGCCTGACCATCTG
TGAGAAGGCCAGTGGGTACCTGCAGGACAGCCTGGCTACCACACCAGCCAGCAGCTCCATTGACAAGGCCGTGCA
GCTGTTCTGTGTGACCTGCTTCTTGTGGTGGCACCAGCCTGTGGCGGCAGCAGCAGCCCCCGGCCCCGGCCCC
AGCAGCCAGGGCGCCAGCAGCAGGCCCCAGGCTTCCGCCCTTGAGCTGCGTGGCTTCCAACGGGACCTGAGCAG
CCTGAGGCGGCTGGCACAGAGCTTCCGGCCCCGCATGCGGAGGGTGTCTTCTACATGAGGCCACGGCCCCGGCTGAT
GGCGGGGGCCAGCCCCACACGGACACACCAGCTCCTCGACCGCAGTCTGAGGCGGCGGGCAGGCCCCGGTGGCAA
AGGAGGCGCGGTGGCGGAGCTGGAGCCGCGGGCCACGCGGGGAGCAGCGGAGGCTTGTGCTGGCCTCCTG
CTACCTGCCCCCGGCTTCTGTGCGGCGCCGGGCAGCGCGTGGGCATGCTGGCTGAGGCGGCGCGCACACTCGA
GAAGCTTGGCGATCGCCGGCTGCTGCACGACTGTCAGCAGATGCTCATGCGCCTGGGCGGTGGGACCACTGTAC

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FIGURE 4742B

TTCCAGCTTAGACCCCGTGTCCCCGGCCTCAGCACCCCTGTCTCTAGCCACTTTGGTCCCGTGCAGCTTCTGTCCT
GCGTCGAAGCTTTGAAGGCCGAAGGCAGTGCAAGAGACTCTGGCCTCCACAGTTCGACCTGCGGCTGCTGTGTGC
CTTCGCGGTGGAAGGCCCGAGGGGCGCGATCTTGACCCTAAGACCGGCGGCCATGATGGTGCTGACCTCTGGTGG
CCGATCGGGGCACTGCAGGGGCCGAGCCATTTTGGGGGGCCCCCTCCTTGCTCTGCAGGCACCTTAGTGGCTTT
TTTCCTCCTGTGTACAGGGAAGAGAGGGGTACATTTCCCTGTGCTGACGGAAGCCAACCTTGGCTTTCCCGGACTG
CAAGCAGGGCTCTGCCCCAGAGGCCCTCTCTCTCCGTGCTGGGAGAGAGACGTGTACATAGTGTAGGTCAGCGTGC
TTAGCCTCCTGACCTGAGGCTCCTGTGCTACTTTGCCTTTTGCAAACCTTTATTTTCATAGATTGAGAAGTTTGT
ACAGAGAATTAAAAATGAAATTATTTATA

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FIGURE 4743

MDEPPFSEAALEQALGEPCLDAALLTDIEDMLQLINNQDSDFPGLFDPFYAGSGAGGTDSPASPDTSPPGSLSP
PATLSSSLEAFLSGPQAAPSPLSPPQPAPTPLKMYPSMPAFSPGPGIKEESVPLSILQTPTPQPLPGALLPQSFP
APAPPQFSSTPVLGYPSPPGGFSTGSPPGNTQQPLPGLPLASPPGVPPVSLHTQVQSVVPQQLLTVTAAPTAAV
TTTSTSQQVQVPLLPQPHFIKADSLLLTAMKTDGATVKAAGLSPLVSGTTVQTGPLTLVSGGTILATVPLVVD
EKLPIINRLAAGSKAPASAQSRGEKRTAHNAIEKRYRSSINDKIIELKDLVVGTEAKLNKSAVLRKAIDYIRFLQH
SNQKLKQENLSLRTAVHKSLSKDLVSACSGGNTDVLMEGVKTEVEDTLTPPPSDAGSPFQSSPLSLGSRGSGS
GGSGSDSEPDSPVFEFSKAKPEQRPSLHSGMLDRSLALCTLVFLCLSCNPLASLLGARGLPSPSDTTSVYHSP
GRNVLGTESRDGPGWAQWLLPPVVWLLNGLLVLSLVLLFVYGEVTRPHSGPAVYFWRHRKQADLDLARGDFAQ
AAQQLWLALRALGRPLPTSHLDLACSLWNLIRHLLQRLWVGRWLAGRAGGLQQDCALRVDASASARDAALVYHK
LHQLHTMGKHTGGHLTATNLALSALNLAECAGDAVSATLAEIYVAAALRVKTSPLRALHFLTRFFLSSARQACL
AQSGSVPPAMQWLCHPVGHRFFVDGDWSVLSTPWESLYSLAGNPVDPLAQVTQLFREHLLERALNCVTQPNPSPG
SADGDKEFSDALGYLQLLNSCSDAAGAPAYSFSISSSMATTIGVDPVAKWWASLTAVVIHWLRRDEEAAERLCPL
VEHLPRVLQESERPLPRAALHSFKAARALLGCAKAESGPASLTICEKASGYLQDSLATTPASSIDKAVQLFLCD
LLLVRTSLWRQQPPAPAPAAQGASSRPQASALELRGFQDLSSLRRLAQSFRRPAMRRVFLHEATARLMAGASP
TRTHQLLDRSLRRRAGPGGKGGAVAELEPRPTRREHAEALLASCYLPPGFLSAPGQRVGMLAEAAARTLEKLGR
RLLHDCQQLMRLGGGTTVTSS

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FIGURE 4744

AGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGACCAA
GATCTTCCACCCGAACCTGGGCGCCAATGGCGAGATGTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTGAGCT
GGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACGAGGA
GGCGGGCCGCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACGGGGG
CGCCGGCGGGCCCAGCGGCAGGGCCAAAGCCGGGCGGGCCCTGGCCAGTGGCACTGCAGCTTCCTCCACCGACTC
TGGGGCCCCAGGGGGCTTGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGAAGCT
GGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTACGGCGGCTGTAGTGGGCTCTCTTCCTCCTTCCACCGTG
ACCCCAACCTCTCCTGTCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGAGGGT
ACAGGGGGCACTGAGACCTGGATTTGTTTTTTTAAATAAAGTTGGAAGCA

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FIGURE 4745

TTTCTCTGGAGGAGCTCCGCGCGTGGCGAGTCTGTGTCTCTCCCTGTCCCCCAGAGCAGAGAACCCTCTCTGTGTCT
TGGACCGGGGAGGAGCAGACGCTGGACAGGGTGTGTGTGTTCAGCAGTGGATTGTCTAGACTTGGGGTCCCGGCTG
CTCCCTTTTGGGTCTCTCCCCGGGCCCCGCTGATCTGACTGTAATTCCTTCTGTCTGGAGCTAGGGTTCCGCCACCT
TGACGCGCCCCCTCTGCCCCCGGAGCGTGTCTTTGGGTTTTGTGTGTGTGGGAGTGGGGTGTATGTGTGTTTCTT
ATCCGAGACACCTCCGGGTCGTTTGCTTGGAACCGGCTGAGGGCCCCGCACAGCCTGGAGCATTGGTTGGAAG
TGAGGCAGGTAGCGCCCAAGGCTCCTGTACCAGGGCCAGGTTAGGCACCAACGCGTCCCTTATGTCTCTGCAGCC
TGCAGTGTGGTGGAAACCGTTTTATAGACTGACAGTGTGAACGTGGGAGGGGATGGATATCAGAGACCCGTTTTATC
CACATTTTCAGAGAGTGGTATTGCTCCGATGTGAGTGTAGGCAGGTTACTCTCTGTGTCTCGTGTCTTTACCTG
TAATTTGAGGTTTGTGTACCTACTTTTAAAGTGGTGGTTGTGAGGATTAAATGGAATTTTGACATGCAACAGTTG
ACACAGGGCCAGACACCAAGTAAGGGATCAATCAGTTGTTGCTTTTATTAATAGTAGGCATCCATCTGCCCACTT
GTACGTAAGAAGGAAACACCCAAGAATGAAAAGTAGCTTGTGTAGGTCACCCAGCCAAGTACACATAGGGGAA
ATTAGAATCCAGGCACTCCAGCAGGGCACTTTCCACCACCCTGCACTTTTGTATTTCATCAGGCACAATATCCTT
ACTGTTGTCTGTAACGTCTATGTTCCAGTGTCTGACTCTGCAGGGCCCTGGTGGTATAAAGGTACTGAGACTT
GCCTGTGTTTAGGGCTTCTGAAGATTAAATGGCTGCTGAAGTTCTTGAGTTTAGCTTTAGCTCAAAAGATACTG
CGTCAGACTCTGCGTTCTGAGTAGAGTCTCAGACAATGAAAAAAGAAATACAATGAAAAAGGGGAAAACTTCAAT
CCAGAATCTCTTGCCACAGTTTTTGGCAGAATGCTGGCAATTTCCAGGAAGATATGTGGAGAACGGAAAGGTTGC
TACACCCAAATAGTGGCGCAAAGGCTATGATTATGGAGGATTGGACCTGCAAACCTCAGAACAGAGTTCTGCCCT
CTGAGGACCCCTGCCCTTTCCCAAAGGGGTATCTTAAGAAGGAAAATATGGCTGCTCTTTGCCGGACAGCAGAGT
CCCAGAGGCTGAACTCCAGTGCACCCAGTTAGACTTGGAGCGGAAACTCAAGTTGAATGAAAATGCCATCTCCAG
GCTCCAGGCTAACCAAAAGTCTGTTCTGGTGTGCGGTGTGAGAGGTCAAAGCAGTGGCTGAAATGCAGTTTGGGGA
ACTCCTTGCTGCTGTGAGGAAGGCCCAGGCCAATGTGATGCTCTTCTTAGAGGAGAAGGAGCAAGCTGCGCTGAG
CCAGGCCAACGGTATCAAGGCCACCTGGAGTACAGGAGTGCCGAGATGGAGAAAGTAAGCAGGAGCTGGAGAC
GATGGCGGCCATCAGCAACACTGTCCAGTTCTTGGAGGAGTACTGCAAGTTTAAAGAACTGAAGACATCACCTT
CCCTAGTGTTTACATAGGGCTGAAGGATAAACTCTCGGGCATCCGCAAAGTTATCACGGAATCCACTGTACACTT
AATCCAGTTGCTGGAGAACTATAAGAAAAAGCTCCAGGAGTTTTCCAAGGAAGAGGAGTATGACATCAGAACTCA
AGTGTCTGCCATTGTTACGCGCAAATATTGGACTTCCAAACCTGAGCCCAGCACCAGGGAACAGTTCTCTCCAATA
TGTGCATGACATCAGTTTCGACCCGGACACAGCACACAAGTATCTCCGGCTGCAGGAGGAGAACCGCAAGGTCAC
CAACACCACGCCCTGGGAGCATCCCTACCCGGACCTCCCCAGCAGGTTCTTGCAGTGGCGGCAGGTGCTGTCCCA
GCAGAGTCTGTACCTGCACAGGTACTATTTTGGGTGGAGATCTTCGGGGCAGGCACCTATGTTGGCCTGACCTG
CAAAGGCATCGACCAAGAAAGGGGAGGAGCGCAGCAGTTGCATTTCCGGAACAACCTTCTCTGGAGCCTCCAATG
GAACGGGAAGGAGTTACCGGCCTGGTACAGTGACATGGAGACCCCACTCAAAGCTGGCCCTTTCTGGAGGCTCGG
GGTCTATATTGACTTCCAGGAGGGATCCTTTCTTCTATGGCGTAGAGTATGATTCCATGACTCTGGTTCACAA
GTTTGCCCTGCAAGTTTTTCAGAACCAGTCTATGCTGCCTTCTGGCTTTCCAAGAAGGAAAACGCCATCCGGATTGT
AGATCTGGGAGAGGAACCCGAGAAGCCAGCACCGTCTTGGTGGGGACTGCTCCCTAGACTCCAGGAGCCATATC
CCAGACCTTTGCCAGCTACAGTGATGGGATTTGCATTTTAGGGTGATTGGGGGCAAAAATAACTGCTGATGGTA
GCTGGCTTTTGAAATCCTATGGGGTCTCTGAATGAAAACATTCTCCAGCTGCTCTCTTTTGCTCCATATGGTGCT
GTTCTCTATGTGTTTGAGTAATTCTTTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCACTGTTGCCAGGCTGGA
GTGCACTGGCGTGATCTTGGCTCACTGCAAGCTCCGCCTCCCGAGTTCAAGCAATTCTCCTGCCTCAGCCTCCCG
AGTAGCTGGGATTACAGGTGCCTGCCACCACACCCAGCTAACGTTTTGTATTTTAGTAGAGATGGGGTTTACC
ATGTTGGCCAGGCAGATCTCAACTTCTGACCTCGTGATGCACTCACCTCGGCCTCCCAAAGTGTGGGATTACA
GGCGTGAGCCACTGCGCCCTGCTGTTTGTAGTAATTTTAGGCACCAAATCTCCCTCATCTTCTAGTGCCATTCT
TCCTCTCTGTTTCAGGTAAATGTCACACTGTGCCAGAATGGATGACCAGGAACCTTCAAGAGTGGCTGAAAAGAT
TGCAGAGTTATCATAATAAATTGCTAACTTGCCTATTCTCT

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FIGURE 4746

MQFGELLAAVRKAQANVMLFLEEKEQAALSQANGIKAHLEYRSAEMEKSQLEETMAAISNTVQFLEEYCKFKNT
EDITFPSVYIGLKDKLSGIRKVITESTVHLIQLLENYKKKLQEFSKEEEYDIRTQVSAIVQRKYWTSKPEPSTRE
QFLQYVHDITFDPDTAHKYLRLQEENRKVTNTTPWEHPYPDLPSRFLHWRQVLSQQSLYLHRYFFEVEIFGAGTY
VGLTCKGIDQKGEERSSCISGNNFSWSLQWNGKEFTAWYSDMETPLKAGPFWRLGVYIDFPGGILSFYGVEYDSM
TLVHKFACKFSEPVYAAFWSKKENAIRIVDLGEEPEKPAPSLVGTAP

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FIGURE 4747

ACTGCCGGCCTGCGCGGTACTCACTGCCGGCCTCCGCGGTACCCACTGCCGGCCTCCGCGCTACCCGGCCGCGAGC
GCGCGAGTCACATGGAAGCTCCTGAGGAGCCCGCGCCAGTGCGCGGAGGCCCGGAGGCCACCCCTTGAGGTCCGTG
GGTCGCGCTGCTTGC GGCTGTCCGCCTTCCGAGAAGAGCTGCGGGCGCTCTTGGTCCTGGCTGGCCCCGCGTTCT
TGGTTCAGCTGATGGTGTTCCTGATCAGCTTCATAAGCTCCGTGTTCTGTGGCCACCTGGGCAAGCTGGAGCTGG
ATGCAGTCACGCTGGCAATCGCGGTTATCAATGTCACTGGTGTCTCAGTGGGATTTCGGCTTATCTTCTGCCTGTG
ACACCCTCATCTCCCAGACGTACGGGAGCCAGAACCTGAAGCACGTGGGCGTGATCCTGCAGCGGAGTGCGCTCG
TCTGCTCCTCTGCTGCTTCCCTGCTGGGCGCTCTTCTCAACACCCAGCACATCCTGCTGCTCTTCAGGCAGG
ACCCAGATGTGTCCAGGCTTACCCAGACCTATGTACAGATCTTCATTCCAGCTCTTCTGCAACCTTTCTTTATA
TGTTACAAGTTAAATATTTGCTCAACCAGGGAATTGTACTGCCCCAGATCGTAAGTGGAGTTGCAGCCAACCTTG
TCAATGCCCTCGCCAACTATCTGTTTCTCCATCAACTGCATCTTGGGGTGATAGGCTCTGCACTGGCAAACCTTGA
TTTCCCAGTACACCCCTGGCTCTACTCCTCTTCTCTACATCCTCGGGAAAAAACTGCATCAAGCTACATGGGGAG
GCTGGTCCCTCGAGTGCTGCAAGGACTGGGCTCCTTCTCCGCGCTGGCCATCCCCAGCATGCTCATGCTGTGCA
TGGAGTGGTGGGCTATGAGGTGCGGAGCTTCTCAGTGGCATCCTCGGCATGGTGGAGCTGGGCGCTCAGTCCA
TCGTGTATGAACTGGCCATCATTGTGTACATGGTCTTGCAGGCTTCAGTGTGGCTGCCAGTGTCCGGGTAGGAA
ACGCTCTGGGTGCTGGAGACATGGAGCAGGCACGGAAGTCTCTACCGTTTCCCTGCTGATTACAGTGCTCTTTG
CTGTAGCCTTCAGTGCTCTGCTGTTAAGCTGTAAGGATCACGTGGGGTACATTTTTACTACCGACCGAGACATCA
TTAATCTGGTGGCTCAGGTGGTTCCAATTTATGCTGTTTCCACCTCTTTGAAGCTCTTGCTTGCACGAGTGGTG
GTGTTCTGAGGGGAGTGGAATCAGAAGGTGGAGCCATTGTGAATACCATTGGGTACTATGTGGTTGGCCTCC
CCATCGGGATCGCGCTGATGTTTGCAACCACACTTGGAGTGATGGGTCTGTGGTCAGGGATCATCATCTGTACAG
TCTTTCAAGCTGTGTGTTTTCTAGGCTTTATTATTACAGCTAAATTGGAAGAAAGCCTGTGAGCAGGCTCAGGTAC
ACGCCAATTTGAAAGTAAACAACGTGCCTCGGAGTGGGAATTCTGCTCTCCCTCAGGATCCGCTTCACCCAGGT
GCCCTGAAAACCTTGAAGGAATTTTAACGAACGATGTTGGAAGACAGGCGAGCCTCAGTCAGATCAGCAGTGC
GCCAAGAAGAACCTTTGCCGGAACATCCACAGGACGGCGCTAAATTGTCCAGGAACAGCTGGTGCTGCGGGCAG
GGCTTCTGCTCCTGGGGTCTTCTTAATCTTGCTGGTGGGATTTTAGTGAGATTCTATGTGAGAATTCAGTGAC
GTGGTAGGAAAGAAAGTCAGGTGAGTGATGCTTTTGAGCTTACACACAATTCACAGGCCACCAAGTGACAATTT
ACTGTGAGTTAATGTCATTACAGGTGTGCCATGGATTTTGAGGGCTGGAATGCAAGACACATTTTTCTATAAA
AAGAAAAAGCAACTAAGGTAAAGCTATATTGTGGCCCAAGACACTGTCTGAAAGATGACATGAGTAGTAATTC
ACCCTATCTGAACCAAGCAAGGATCAATGTGCTGACTGCATTGGCCAATGGCTTTGATACTTCTGCTATTTTTT
TAGACACAAACCCATAAACTAACTGCTTAAAGAAATTCATACTGCTTGAATTATGTAAATATATTTTTACAGTATAT
CTTTCCTTGGGCTTAGATTACTATTCACTGGGCAAATGGTATTTGTTTTTGTAAAAATTTTTTTTTTAATAGAC
GGAAGTCTTGCTCTGTCATGCAGGCTGGAGTGCGGTGGTGCGATCATAGCTCACTGCAGCCTCGAACTCTTGGGC
TTCAAGCAATCCTCCTGTGTGTCAGCCACCAGAGTAGCTGAGACTACAGGGGTATGCCACCATGCCAGCTGGCATT
TGTTAATCTTCATTTGAGGTCTAGATCTAGGCACCTGTGGACACTGAAAAACAGTTGGGAAATCTTTCAGCTGTG
GAAATCCAAACAAAGACTGATAATTCTGGTAGGGGTGTGTGCGTGACGTACTGCAGCCTCAACCTCCTGGGCTC
AAGTGATCCTCCACCTCAGCCTCCTGAGTAGCTGAGACCACAGGCGTGTGCCACCACGCCTAGCTAATTTTTTA
TACCAGGGTCTACCCCTTGTGTTCCAGGCTGGTCTTGAATTCCTGGGATCAAGCAATCCTTCCACCTTGCCCTCC
CAAAGTGTTGGGATTATAGGCATGAGCCACCAGACTGGCCAGAGGACAAAAATTTAATAAAGGTCTTAGCTTAA
GCAGTAATCCTACTTCATTAAGCCTTCTGGGGTGCGGTACACACCGTTAATTCAGCAACCCCTCAGTACATACTA
AGTATGCTCAGTGCTGTGAAAGTGGATTACACCAAATTAAGTCATTCTTATCACACCCAATCAAAAGTCAAGAAG
CCAGGGATAAAAGCACCTCAGGCACATAACATTAATCTAGTAATGTAATTCTCTGCACATCCAGCTGGTGAACCT
GCGTGCTGTAAGCTGGGACCAGCTTTGTCCATAACTGCTGAGAGAACTTGCTGAAGCTCTAGGAATAATTTTGCC
TGCCCGGTTGCTCACCAGTTGTAGCTTGCCAGCTCCCAACACCCCTTCTGGTGCCAATAAACTTTCTCAAAGAGC
AATACTGACATTTCTTTGATAAAACCTCCAGCCTTCTCTGTGTTGTTCCGACATACCGAGGACCAACTGGTCTA
CATGGATGCCCTGAACATGCAATCTTCTTCCAAAATAAAACATTAAATAGAG

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FIGURE 4748

MEAPEEPAPVRGGPEATLEVRGSRCLRLSAFREELRALLVLAGPAFLVQLMVFLISFISSVFCGHLGKLELDAVT
LAIIVINVTGVSFGLSSACDTLISQTYGSQNLKHVGVILQRSALVLLCCFPCWALFLNTQHILLFRQDPDV
SRLTQTYVTIFIPALPATFLYMLQVKYLLNQGIVLPQIVTGVAANLVNALANYLFLHQLHLGVIGSALANLISQY
TLALLFLYILGKKLHQATWGGWSLECLQDWASFLRLAIPSMMLCMEWWAYEVGSFLSGILGMVELGAQSIVYE
LAIIVYMLAGFSVAASVRVGNALGAGDMEQARKSSTVSLITVLFVAFAFSVLLLSCKDHVGYIFTTDRDIINLV
AQVVPYIYAVSHLFEALACTSGGVLRGSGNQKVGAIVNTIGYYVGLPIGIALMFATTLGVMGLWSGIIICTVFQA
VCFLGFIIQLNWKKACQQAQVHANLKVNNVPRSGNSALPQDPLHPGCPENLEGILTNDVGKTGEPQSDQQMRQEE
PLPEHPQDGAKLSRKQLVLRGLLLLGVFLILLVGILVRFYVRIQ

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FIGURE 4749

CTCTGAGCAGAACTGACAGCATGAAGGCACTCCTGGCCCTGCCGCTGCTGCTGCTTCTCTCCACGCCCCCGTGTG
CCCCCAGGTCTCCGGGATCCGAGGAGATGCTCTGGAGAGGTTTTGCCTTCAGCAACCCCTGGACTGTGACGACA
TCTATGCCCAGGGCTACCAGTCAGACGGCGTGTACCTCATCTACCCCTCGGGCCCCAGTGTGCCTGTGCCCGTCT
TCTGTGACATGACCACCGAGGGCGGGAAGTGGACGGTTTTCCAGAAGAGATTCAATGGCTCAGTAAGTTTCTTCC
GCGGCTGGAATGACTACAAGCTGGGCTTCGGCCGTGCTGATGGAGAGTACTGGCTGGGGCTGCAGAACATGCACC
TCCTGACACTGAAGCAGAAGTATGAGCTGCGAGTGGACTTGGAGGACTTTGAGAACAACACGGCCTATGCCAAGT
ACGCTGACTTCTCCATCTCCCCGAACGCGGTGAGCGCAGAGGAGGATGGCTACACCCTCTTTGTGGCAGGCTTTG
AGGATGGCGGGCAGGTGACTCCCTGTCTACCACAGTGGCCAGAAGTTCTCTACCTTCGACCGGGACCAGGACC
TCTTTGTGCAAACTGCGCAGCTCTCTCTCAGGAGCCTTCTGGTTCCGCAGCTGCCACTTTGCCAACCTCAATG
GCTTCTACCTAGGTGGCTCCACCTCTCTTATGCCAATGGCATCAACTGGGCCCAGTGGAAGGGCTTCTACTACT
CCCTCAAACGCACTGAGATGAAAATCCGCCGGGCCTGAAGGGCTGGCCCCCTCAGGCACCTTTCTCCCTGGAC
ACCATGGTCTCCATGAGTGCTCCCTCTGCTGCCCCCTGATGCATGCTTCTGCTGATTCCCGAGCACCAACTCCTT
ACAAGGGGGCCTTGTGGCTCTCAGCCATGCCACATCCCTGTCACACACCCAGGGCATCCATTCTTAAGCCAGACC
CGGCTCCCCCTACACCTGAAGTTACACTGCCAGCAGTTCCCCAGGCCTCTTCCGAGAGGCACATGGTTCTAGCCTG
GACCTGGCTGGGCTCCATGAGAATGAGTTGCCTCCACCCTGTCCCAACAGCTGACAGCCAGGAGCCACTCTCCCA
GCTGCAGGCCTTTGTGGTCCATCTTGTCTGCTTCCTCACTGTGGACCCCTGTCTGGGCCACCCTAGTGTGCTAA
GCTGAGCAGTGCAGTGTGAACAGGGCCCATGGTGTATTCTAGGCCACAGCCCAGCACTCCTCTGGGCTGCTCTCA
AACCATGTCCCATCTTCAGCATCCCTCCCACCAACTTACTCCCTGTGGTGAGTACCGTGGAACCCAGCCCACC
TCACTATCATACTCAGCTTCCCCTGATGGCCCATCCCAGCCCCTGAAGCTCTATGCCAAGAACACAGCTACCGCA
CACCACCCTGAAACAGCCACAGCCAAGGTAGGCATGCATATGAGGTCTTCCCCATACCCTCTGGGTGTTGAGAGG
TTTAGCCACATGAGGGAGCAGAGGACAATCTCTGCAGGGCTGGGAGTGGGTAGGGACTGAAGGTCTCAATAAACC
TTCAGAACCTGAATGAAGTGGCTTCATACACACAAACATATTTGTTTATCCCCAAATGTAGGCACCTGGCTCCT
CCTTGCTCCCTGCTGATGGTGTCTACCCCGAACTCCAAAAATTACACCTGGAGTCAGGTGCAGAAGGGAACCT
TGTATTTACAGGCCTCATTTTGATGGCAAAAAGACAGTGTAAATAATA

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FIGURE 4750

CGGAGACCCCGCGCTGGGGACGGGAGGCCGGCGAGCCTCGGGACCTCTGAAAGCCTTGAGGAGGCGCGGGGACA
CCATGGCCGAGCCTCTGAAGGAGGAAGACGGCGAGGACGGCTCTGCGGAGCCCCCGGGCCCGTGAAGGCCGAAC
CCGCCCCACCCGCTGCCTCTGTAGCGGCCAAGAACCTGGCCCTGCTTAAAGCCCGCTCCTTCGATGTGACCTTTG
ACGTGGGCGACGAGTACGAGATCATCGAGACCATAGGCAACGGGGCCTATGGAGTGGTGTCTCCGCCCGCCGCC
GCCTCACCGGCCAGCAGGTGGCCATCAAAAAGATCCCTAATGCTTTTCGATGTGGTGACCAATGCCAAGCGGACCC
TCAGGGAGCTGAAGATCCTCAAGCACTTTAAACACGACAACATCATCGCCATCAAGGACATCCTGAGGCCACCG
TGCCCTATGGCGAATTCAAATCTGTCTACGTGGTCTTGGACCTGATGGAAAGCGACCTGCACCAGATCATCCACT
CCTCACAGCCCCCTCACACTGGAACACGTGCGCTACTTCCTGTACCAACTGCTGCGGGGCCCTGAAGTACATGCACT
CGGCTCAGGTCAATCCACCGTGACCTGAAGCCCTCCAACCTATTGGTGAATGAGAATGTGAGCTCAAGATTGGTG
ACTTTGGTATGGCTCGTGGCCTGTGCACCTCGCCCGCTGAACATCAGTACTTCATGACTGAGTATGTGGCCACGC
GCTGGTACCGTGCGCCCGAGCTCATGCTCTCTTTCATGAGTATACACAGGCTATTGACCTCTGGTCTGTGGGCT
GCATCTTTGGTGAGATGCTGGCCCGGCCAGCTCTTCCAGGCAAAAATATGTACACCAGCTACAGCTCATCA
TGATGGTGTGGGTACCCCATCACCAGCCGTGATTGAGGCTGTGGGGGCTGAGAGGGTGCGGGCCCTATATCCAGA
GCTTGCCACCACCGCAGCCTGTGCCCTGGGAGACAGTGTACCCAGGTGCCGACCGCCAGGCCCTATCACTGCTGG
GTCGCATGCTGCGTTTTGAGCCAGCGCTCGCATCTCAGCAGCTGCTGCCCTTCGCCACCCCTTTCCTGGCCAAAGT
ACCATGATCCTGATGATGAGCCTGACTGTGCCCGCCCTTTGACTTTGCCCTTGACCGCGAAGCCCTCACTCGGG
AGCGCATTAAAGGAGGCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGGCGTGAGGGCATCCGCCAACAGATCC
GCTTCCAGCCTTCTCTACAGCCTGTGGCTAGTGAGCCTGGCTGTCCAGATGTTGAAATGCCAGTCCCTGGGCTC
CCAGTGGGGACTGTGCCATGGAGTCTCCACCAGCCCCGCCACCATGCCCGGCCCTGCACCTGACACCATTG
ATCTGACCCCTGCAGCCACCTCCACCAGTCAGTGAGCCTGCCCCACCAAAGAAAGATGGTGCCATCTCAGACAATA
CTAAGGCTGCCCTTAAAGCTGCCCTGCTCAAGTCTTTGAGGAGCCGGCTCAGAGATGGCCCCAGCGCACCCCTGG
AGGCTCCTGAGCCTCGGAAGCCGGTGACAGCCAGGAGCGCCAGCGGGAGCGGGAGGAGAAGCGGCGGAGGCGGC
AAGAACGAGCCAAGGAGCGGGAGAAACGGCGGAGGAGCGGAGCGGAAAGGAACGGGGGGCTGGGGCCTCTGGGG
GCCCCCTCCACTGACCCCTTGGCTGGACTAGTGCTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGACTCGAA
TGGCCCGGCCCGCAGCCCCAGCCCTCACCTCTGTGCCGGCCCCCTGCCCCAGCGCCAACGCCAACCCCAACCCAG
TCCAACCTACCAGTCCCTCCTCCTGGCCCTGTAGCCCAGCCCCTGGCCCCGCAACCACAATCTGCGGGCTCTACCT
CTGGCCCTGTACCCCGAGCCTGCCTGCCCCACCCCTGGCCCTGCACCCCAACCCCTGAGCCCTCCTGGGCCATCC
CTGTCCCCCGGCCACCCAGATTGCCACCTCCACCAGCCTCCTGGCTGCCAGTCACTTGTGCCACCCCTGGGC
TGCCTGGCTCCAGCACCCAGGAGTTTTGCCTTACTTCCCACCTGGCCTGCCGCCCCAGACGCCGGGGGAGCCC
CTCAGTCTTCCATGTCAGAGTCACCTGATGTCAACCTTGTGACCCAGCAGCTATCTAAGTCACAGGTGGAGGACC
CCCTGCCCCCTGTGTTCTCAGGCACACCAAAGGGCAGTGGGGCTGGCTACGGTGTGGCTTTGACCTGGAGGAAT
TCTTAAACCAGTCTTTCGACATGGGCGTGGCTGATGGGCCACAGGATGGCCAGGCAGATTGAGCCTCTCTCTCAG
CCTCCCTGCTTGTGACTGGCTCGAAGGCCATGGCATGAACCTGCGGATATTGAGTCCCTGCAGCGTGAGATCC
AGATGGACTCCCCAATGCTGCTGGCTGACCTGCCTGACCTCCAGGACCCCTGAGGCCCCAGCCTGTGCCCTTGCT
GCCACAGTAGACCTAGTTCAGGATCCATGGGAGCATTCTCAAAGGCTTTAGCCCTGGACCCAGCAGGTGAGGCT
CGGCTTGGATTATTCTGCAGGTTTATCTCAGACCCACCTTTAGCCTTAAGCAGCCACCTGAGCCACCACCGAGC
CATGGCAGGATCGGGAGACCCCACTCCCCCTGAACAATCCTTTTTCAGTATTATATTTTTATTATTATTATGTTA
TTATTACACTGTCTTTTTGCCATCAAAATGAGGCCTGTGAAATACAAGTT

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FIGURE 4751

CCAGGAGCCCCAGTTACCGGGAGAGGCTGTGTCAAAGGCGCCATGAGCAAGATCAGCGAGGCCGTGAAGCGCGCC
CGCGCCGCCCTTCAGCTCGGGCAGGACCCGTCCGCTGCAGTTCCGGATCCAGCAGCTGGAGGCGCTGCAGCGCCTG
ATCCAGGAGCAGGAGCAGGAGCTGGTGGGCGCGCTGGCCGCAGACCTGCACAAGAATGAATGGAACGCCTACTAT
GAGGAGGTGGTGTACGTCCTAGAGGAGATCGAGTACATGATCCAGAAGCTCCCTGAGTGGGCGCGGGATGAGCCC
GTGGAGAAGACGCCCCAGACTCAGCAGGACGAGCTCTACATCCACTCGGAGCCACTGGGCGTGGTCCCTCGTCATT
GGCACCTGGAACCTACCCCTTCAACCTCACCATCCAGCCCATGGTGGGCGCCATCGCTGCAGGGAACCTCAGTGGTC
CTCAAGCCCTCGGAGCTGAGTGAGAACATGGCGAGCCTGCTGGCTACCATCATCCCCAGTACCTGGACAAGGAT
CTGTACCCAGTAATCAATGGGGGTGTCCCTGAGACCACGGAGCTGCTCAAGGAGAGGTTCCGACCATATCCTGTAC
ACGGGCAGCACGGGGGTGGGGAAGATCATCATGACGGCTGCTGCCAAGCACCTGACCCCTGTCACGCTGGAGCTG
GGAGGGAAGAGTCCCTGCTACGTGGACAAGAACTGTGACCTGGACGTGGCCTGCCGACGCATCGCCTGGGGGAAA
TTCATGAACAGTGGCCAGACCTGCGTGGCCCCCTGACTACATCCTCTGTGACCCCTCGATCCAGAACCAAATTGTG
GAGAAGCTCAAGAAGTCACTGAAAGAGTTCTACGGGGAAGATGCTAAGAAATCCCGGGACTATGGAAGAATCATT
AGTGCCCCGGCACTTCCAGAGGGTGATGGGCCTGATTGAGGGCCAGAAGGTGGCTTATGGGGGCACCGGGGATGCC
GCCACTCGCTACATAGCCCCCACCATCCTCACGGACGTGGACCCCCAGTCCCCGGTGATGCAAGAGGAGATCTTC
GGCCCTGTGCTGCCCCATCGTGTGCGTGCGCAGCCTGGAGGAGGCCATCCAGTTCATCAACCAGCGTGAGAAGCCC
CTGGCCCTCTACATGTTCTCCAGCAACGACAAGGTGATTAAGAAGATGATTGCAGAGACATCCAGTGGTGGGGTG
GCGGCCAACGATGTCATCGTCCACATCACCTTGCACTCTCTGCCCTTCGGGGGCGTGGGGAACAGCGGCATGGGA
TCCTACCATGGCAAGAAGAGCTTCGAGACTTTCTCTCACCGCCGCTCTTGCCCTGGTGAGGCCTCTGATGAATGAT
GAAGGCCTGAAGGTCAGATACCCCCGAGCCCGGCCAAGATGACCCAGCACTGAGGAGGGGTGCTCCGCCTGGC
CTGGCCATACTGTGTCCCATCGGAGTGCGGACCACCCTCACTGGCTCTCCTGGCCCTGGGAGAATCGCTCCTGCA
GCCCCAGCCAGCCCCACTCCTCTGCTGACCTGCTGACCTGTGCACACCCCACTCCACATGGGCCCCAGGCCTCA
CCATTCCAAGTCTCCACCCCTTTCTAGACCAATAAAGAGACGAATACAATTTTCTAACTC

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FIGURE 4752A

AACTGGAAGGCGCCCGGTCCTTTCTTTGACTGGAGCGGACCCGCGGACGCAACCGCCTCGCCAGCCGGAGCCAG
 CGCGAGCTCGGCACGGTGGACACCCGGTCCGAGGCGCGCAAGCCGGCTGGTGCCCGAGTCGGCCAAGCATGGGCA
 ACCACTCAGGACGGCCCCGAGGATCCGGAACCAGGGGCCTTTACAACAATAAACCGACAGGCATTCCAGCCCCAC
 GGAATTTTTCAGTAACGTGTCTCAAGAGAGAGGTCTGTGCCACGTGGTCCCTCCAACCCAGGAAATCAGTGTCCA
 GTCCAACCTTCTTCCAACACTCCCCTCTACGAAACACCTGAGGACCCCTTCCACAAAGCCCAAGCAAGAGAATG
 AAGGTGGAGAAAAGGCTGCGCTTGAGTCCCAAGTTCGGGAACCTTTTGGCAGAAGCCAAAGCAAAAGATAGTGAAA
 TTAACAGGCTTCGAAGTGAATAAAGAAATACAAAGAGAAAAGGACTCTGAACGCTGAGGGGACTGATGCTTTGG
 GCCCAAATGTGATGGAACATCAGTCTCCCCAGGTGACACGGAACCTATGATAAGAGCTCTTGAGGAGAAAGAACA
 AGAACTTTCAGAAAGAGCTTTCCGATCTAGAGGAAGAAAACCGGGTCTGAAGGAGAAACTGATCTATCTTGAGC
 ACTCCCCAAATTCAGAAGGGGCAGCAAGTCACACTGGCGACAGCAGCTGCCCAACATCCATAACTCAAGAGTCAA
 GCTTCGGAAGCCCAACTGGAATCAGATGTCCAGTGACATTGATGAGTATAAAAAAACATACATGGAAATGCAT
 TACGGACATCAGGCTCCTCAAGTAGCGATGTTACCAAAGCTTCTTTGTGCGCAGATGCTTCCGACTTTGAGCACA
 TTACAGCAGAGACACCCCTCAAGGCCCCGTGCTCTCCACCAGTAACCCCTTTAAGAGTTCAAAGTGTCTACTGCTG
 GGAGTTCCCCAAACAGCGTAAGTGAATTGTCCCTGGCTTCCCTCACAGAGAAGATACAAAAGATGGAAGAAAACC
 CACTAGCAGCTGAGAAGAACTACAGGCTACTCTACAAGAATTATCAGACCAGCAACAAATGGTACAGGAATTGA
 CAGCTGAAAATGAGAAGCTGGTGGATGAAAAGACGATTTTAGAGACATCCTTTCATCAGCATCGAGAGAGGGCAG
 AGCAGCTAAGTCAAGAAAATGAGAAGCTGATGAATCTTTTACAAGAGCGAGTAAAGAATGAAGAGCCCCACCACTC
 AGGAAGGAAAAATTTATTGAACCTGGAGCAGAAGTGCACAGGTATTCTTGAACAGGGCCGCTTTGAAAGAGAGAAGC
 TACTCAACATTTCAGCAGCAGTTGACCTGTAGCTTGCAGGAGGTTGAGGAAGAAAACCAAGGAGCTTTAGAAAATGA
 TTAACGCTCTGAAGGAAGAAAATGAAAACTGAATGAGTTCTTAGAAGTGGAAACGGCATAATAATAACATGATGG
 CCAAACCTTTTGAAGAGTGTAGAGTTACCTTGAAGGGCTAAAAATGGAGAATGGATCTTTGAAGTCTCATTTGC
 AGGGTGAGAAGCAGAAAGCCACAGAGGCCAGTGTGTGGAGCAGACGGCAGAGAGCTGCGAAGTTCAGAAATGT
 TGAAAGTAGCCCGAGCAGAGAAAGATCTACTGGAAGTGTCTTGCATGAGCTCAGACAAGAATTACTAAAGGCCAA
 ACGGTGAAATTAACATGTTTTCCAGTCTGCTGGCCAAGGTGGAAGGATTATTATACCTGAAGGAGATATGTG
 ATCACCAGCCGAACAGCTGAGCAGAACAGCCCTAAAGCTGCAAGAAAAGCATCAGAGAGTGATGCAGAGATCA
 AAGACATGAAGAAACCATATTTGAATTGGAAGATCAGGTGGAACAGCACCGGGCTGTCAAGTTACACAATAATC
 AACTCATCAGTGAGCTAGAAAGTAGTGTGATCAAGCTGGAGGAACAGAAGTCAGACCTGGAGAGGCAGCTGAAGA
 CTCTGACCAAGCAGATGAAGGAGGAGACCGAGGAATGGAGGCGGTTCCAGGCGGATCTGCAGACCGCAGTGGTGG
 TGGCCAATGACATCAAGTGTGAGGCCAGCAGGAGCTGCGCACCGTGAAGAGGAAACTGCTGGAGGAGGAGGAGA
 AGAATGCCCGGTTGCAGAAGGAGCTGGGGGATGTGCAGGGCCACGGCAGGGTGGTCACCAGCAGAGCCGCCCTC
 CACCTGTGGATGAAGAGCCAGAGTCTCTGAGGTGATGCTGCTGGTGGTGGCTGGTGTCTGTGTTAGCAGAA
 CATCTCCAACACCCCCAGAGTCGGCAACCACCGTTAAGTCACTTATCAAGTCATTTGACTTGGGACGCCAGGTG
 GAGCTGGACAGAATATTTCTGTCCATAAGACCCCCAGAAGTCCCTAAGTGGGATACCAGTGAGGACTGCTCCAG
 CAGCTGCTGTCTCTCAATGCAGAGGCATTGACTTACAGCAGTGTGCGGCCAGCCAGCAGAGGGGTGACTCAAC
 GCTTGGACCTTCCTGACCTTCCCCTCTCAGATATTCTAAAGGGAAGGACTGAGACCCTGAAGCCAGACCCCCACC
 TCCGCAAGAGTCCCTCACTAGAGTCACTGAGCAGACCCCGTCTCTGGGCTTTGGGGACACAAGACTGCTGAGTG
 CTTCCACCCGGGCATGGAACCACAAAGCAAACTCAGTGTGGAAGAAAAGACCCTCTGGCAGCCTTGGCCCCGGG
 AATACGGTGGTTCCAAGCGCAATGCTCTACTGAAATGGTGCCAGAAGAAGACACAAGGTTATGCGAACATTGACA
 TCACCAATTTTCAGCAGCAGCTGGAGCGATGGCTGGCTTCTGTGCTCTGCTCCACACCTACCTGCCTGCCACA
 TCCCTACCAGGAGCTGAATAGTCAGGAGAAAAAGAGGAATCTCTGTGTCATTGAAAGCGGCTGAAAGTGTAG
 GCATCAAACCCAGCCTGGAACCTCAGCGAGATGCTGTACACAGACCGGCCGACTGGCAGAGTGTGATGCAGTACG
 TGGCCCAAATCTACAAGTACTTTGAGACGTAACCTGGAGGGCTGGGGCAGCCACCATTGCCACCTACTGCAGC
 TTTTCTGGAAGCGCCTGATTACTGTCCACTGACCTGCTCTGCCACCACCCAGCTGCCTAGACTTCAAAGACA
 GGCTCAATCCAAGTGACCAACACCCAAATAAGAAACAGAGTGGGTCCCAGATGTACCTGTCTGAAATGCAAT
 GCAGCTGGACTGTAAATTGGGGACTCTTTGATCTCTTGTGGGATGCTTCTAAAGAGGGCAGCCTCCCTCCTTCCA
 GACCAAGACCCACACCCAGGCTTGTGTTGTGATTATATTGGGTGGCTGAACGAACACATTATCTGCAGAAATT
 CAGACAAAGAACATCTCCAAATCAGTCTTTTGGTGTCTGTGTTAAAAATATCCCGGCTTTGCCTTTATGAACCC
 TTTGCCCTTGGCTGGGTGTGGTAGCTCGTGGCTGTAATCCAGCACTTTAGGAAGCCAAGGCAGTAGGATCGTTT

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FIGURE 4752B

GAGCCCAGGAGTTCGAGGCTGCAGTGAGCTATGAGCATACCACTGCACTCCAGCCTGTGTGAAAGAGCCAGACCC
TGTCTC

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FIGURE 4753

MGNHSGRPEDPEPGAFTTTKRTGIPAPREFSVTVSRERSVPRGSPNPRKSVSSPTSSNTPTPTKHLRTPSTKPKQ
ENEGGEKAALLESQVRELLAEAKAKDSEINRLRSELKKYKEKRTLNAEGTDALGPNVDGTSVSPGDTEPMIRALEE
KNKNFQKELSDLEENRVLKEKLIYLEHSPNSEGAASHTGDSSCPTSITQESSFGSPTGNQMSSDIDEYKKNIHG
NALRTSGSSSSDVTKASLSPDASDFEHITAETPSRPLSSTSNPFKSSKCSTAGSSPNSVSELSLASLTEKIQKME
ENHHSTAEELOATLQELSDQQQMVQELTAENEKLVDEKTILETSFHQHRERAEQLSQENEKLMNLLQERVKNKEP
TTQEGKIIIELEQKCTGILEQGRFEREKLLNIQQQLTCSLRKVEEENQGALEMIKRLKEENEKLNELERHNNN
MMAKTLEECRVTLLEGLKMENGSLKSHLQGEKQKATEASAVEQTAESCEVQEMLKVARAEKDLELSCNELRQELL
KANGEIKHVSSLLAKVEKDYSYLKEICDHQAEQLSRTSLKLQEKASESDAEIKDMKETIFELEDQVEQHRAVKLH
NNQLISELESSVIKLEEQKSDLERQLKTLTKQMKETE EWRRFQADLQTAVVVANDIKCEAQQELRTVKRKLLLE
EEKNARLQKELGDVQGHGRVVTSTRAAPPVDEEPESSEVDAAGRWPVCVSRTSPTPPESATTVKSLIKSFDLGR
PGGAGQNISVHKTPRSPLSGIPVRTAPAAVSPMQRHSTYSSVRPASRGVTQRLDLPDLPLSDILKGRTE TLKPD
PHLRKSPSLESLSRPPSLGFGDTRLLSASTRAWKPQSKLSVERKDPLAALAREYGGSKRNALLKWCQKKTQGYAN
IDITNFSSSWSDGLAFCALLHTYLPAPHIPYQELNSQEKRNLLLAFAEAESVGIKPSLELSEMLYTDRPDWQSV
QYVAQIYKYFET

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FIGURE 4754

CGCGGTGCCTTTTGTAGCTCCTTGTCCACGCTCCGCCCCTGTGGGAACGGCCGCGCTCCCCGCAGCTGGTCATCCG
CCGCTGCCTCCGGGCTCACCAAGGAGCAGCTGGAGGAGCAGCTGCGCCCGTTGCCAGCACACGACTACTTCGA
GTTCTTCGCCGCCGACCTGAGTCTTTATCCTCATCTCTACTCAAGAGCATACATTAATTTTAGGAATCCTGATGA
CATCCTTCTTTTTAGAGATCGTTTTGATGGGATATATCTTCCTTGACAGCAAAGATCCAGAAATATAAGAAATTT
TAGAAACCTACTGTGTGGAGGAAGAGAAGGCCAGTGCCAACCCTGAGACTCTGCTGGGGGAGATGGAGGCGAAGA
CAAGAGAGCTCATTGCTAGAAGAACCACACCTCTTTTGGAATATATTAATAATAGAAAATTAGAAAAGCAGAGAA
TTCGAGAAGAGAAGCGAGAAGAACGGAGGAGGAGAGAGTTAGAAAAGAAAACGTTTGCGGGAAGAGGAAAAAGAA
GAAGAAGAGAAGAAGAAAGATGCAAAAAAAAAAAGAGAGACAGATAAACAGAAAGAAAATTGCAGAGAAAGAAGTA
AGGATTAAGCTTCTTAAGAAACCAGAAAAGGGAGAGGAACCAACCACAGAGAAACCAAGAAAGAGAGAGAGAG
ATTGATACTGGAGGTGGCAAGCAGGAATCCTGTGCCCCCGGTGCAGTCGTAAAGCCAGGCCCGTGAAGGCTCG
CTGGAGGAGCCCCAGGAGACGTACACAGCGGCAGTGATAAAGAGCACAGGGATGTGGAGAGATCTCAAGAACAA
GAATCTGAAGCACAAAGACACCATGTGGATGATGGCAGGAGGCACAGAGCTCACCACGAGCCTGACCGGCTTTCC
AGAGGGAGTGAGGATGAGCAGAGATGGGGGAAAGGACCTGGCCAAGACAGAGGGAAGAAGGGGAGCCAGGACAGC
GGGGCTCCGGGGGAGGCCATGGAGAGACTGGGAAGAGCGCAGAGGTGTGACGACAGTCCAGCACCCAGAAAAGAG
CGACTGGCAACAAGGACCGGCCAGCCTTGACAGCTGTATGATCCAGGAGCTCACTTCCGAGCGCTAGAGTGTGGC
GGAACAGGAGGATCTGCAAGGCAGAAGGTTCCGGGAACGGTCTGAGAAAGAGGGAAGAGGCAGAGTGAGTCACT
GCACGCACCTGGCCTCCATGGACGAGCGAGGGCATCCAGAAACGTGTAAATGACCCCGAGTGTGACTGGGAAGG
AGAACTTATTCTTACCAGGAACTGGAAGCTAAACTACAGAGGGTGACATAGAAACACGCAGAAACCATTCTA
AAGAAAGTAGTGATCTTGTATTAAATTGAGCAGAATTCTCACAGATTTTACCATTCTGTATAAACTAGTATTT
GTTGTTTAGCCAAAACAGAAAATGATTTCCACTGGACAGTAGAAAAATATGTGTAAATAGGGAAGAAAGTTAGT
ATTGGATCAGTGTGAGTCCTGAAGCACTTTCAGTGCTGTGAGAACGACATCCACTTTGGGTTTCATTGTTTTGTA
AGCAGAGGAGCTGTGAGTCACTCGTGCTTCTGTTGGCCTCTGAGCCATGGTGTGAGTGAAGAGTAGTTCTTGT
TTGTTACAACCTTTGTGAGTCAGCCATGCCTGCAAAGTGTGCTGTGTTTTAGTCCTGGTAGGAATATTTATCAGA
GTTACACTATATAAAACCCAACAGCTTCAACTATTGCCCTTTCAACAGTTTTGCCACTGACCGGATAAAAACGG
TTTCAGTCTTTGGATGGATGTGTTTGTGGTTTGTAAACCATTACGGTTTAAACCATGGTTTAAAGAAATTTGCCCAA
TAACAGAAATTTTGTTCGGGAAGGGATAAACGAGATATAGCATATAGAGCCTGTTTTTGTAGTTTTAGATACTTTA
TTTGTAATAACTTAAATAGCTTTCTGAAACCGTGCACTTCTGTAGTTTCTTCTTTTCAGTGAAATTGCTAAATG
TGAATGTATTTTGGCACTGCGATTTTAACCATTTATTAAATAAAAAATTTGTAAAG

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FIGURE 4755

GTAAGACACCTTTGCAGTCCTTCCTGGGAATCGCTGAGCAGCACGGGGGCCCCAAAATGGGACCCTGATCACTC
AGACTCTGAGCCAAGCCAACCCCACTGCCATCACTGCAGAAGAATACTTCAACCCCAACTTTGAGCTGGGCAACC
GTGATATGGGCGCCCCATGGAAGTACCACCAAGACACAGAAGTTCAAGGCCAAGCTGTGGCTGTGTGAGGAGC
ATCCCCCTGTCCCTGTGTGAGCAGGTGGCCCCCATCATTGACCTCATGGCCGTCAGCAATGCGCTTTTGGCAAGC
TCCGGGACTTCATCACCTGCGTCTGCCTCCTGGCTTCCCAGTTAAGATTGAAATCCCGATCTTCCACATCCTCA
ACGCCCCGATCACCTTCGGGAACCTCAACGGCTGCGACGAACCGGTGCCATCGGTGCGAGGCAGCCCCAGCAGCG
AGACGCCTTCCCCAGGCAGCGACTCCTCCAGCGTCAGCAGCTCCAGCTCCACGACCTCCTGXCCGCGGCTGCGAG
ATCTCCCCAGCGTTGTTTCGAGGCCCGCGCGGCTACAGCATGATGGGCGGCCAGCGGGAGGCGGCGACCCGGGAC
GACGACGACGACCTGCTGCAATTCGCCATCCAGCAGAGCCTGCTTGAGGCGGGCAGTGAGTATGACCAGGTCACC
ATCTGGGAGGCGCTAACCAACAGCAAGCCAGGCACCCACCCCATGTCTACGAGGGTCGCCGACAGGACAGGAGC
GCCCCGCCCCACGCCGAGCGCCAGCCTGCGCCCCCGGCGTCAGTGCCAGCCCTCGGCCCCAGCTCAGGGCCAGGT
TCCGGCGGCCACGTGTTCCGGAGCTACGACGAGCAGCTGCGGCTGGCGATGGAAGTGTGCGCGCAGGAGCAGGAG
GAGAGGCGGCGGCGCGCGGCCAGGAGGAGGAGGAGCTGGAGCGCATCCTGAGGCTCTCACTGACCGAGCAGTAG
CGCCCCCTGCCGGGACCTCGCCAGCGCCACGCGCGCCACGCCCAGGGCCAGGAGCCAGACAAACCCCGGCTGC
GCGCCTGCAGAGCGGCGGCTGGAGACTGGAGCCACCGCTCGCGGGTGCAGCAGCACAGCAGGCACGGTTCGGGG
AGGGATTGCGCATGGCCGCGGGGTACCTTCCCAGGCCAGGGCCCTGGAGGCAACTGGCACGGCTGGTCCCCCTG
CTTTGCTGTATTCTGATTCCCCAACCCGCTCCCTGGGCTCAGATCTGTCTGTCTAGGGCGGAGCCAGGCGGT
CCTGAGGGGGAGATGAATCCTTAGAGGAGCGTGTCCCTATCCCTTGCTCCTTCTGGCCGGTCCGCATTTCTGTT
CACTAACCCCACTCCAGGACACTGCCCTGAAGCCTTGCATCTCTGCTCTTCACTCCTGGGGGGCAGCTGAGCT
CCCCGCGTGCTGTGTCACTGCTTTGTTCAGACACAAACAGCAGCTCTAGGGCCCCAGCCCCCTCCCCACCCCGG
CATTTAGCGTCAAGTGCACTTAGCGGGGTACCCGGCTCCCCAGCCCCACACCCGTCCTGGGTCTCAGGGTGG
TTCCAGCTTCTCCTTGGGCAGCCAGAAGTTGGAGTCCCATCCCCAAGGCACATTTTTTTTTTTTTTTTTTGTG
ATCAGGGAGTGTGTCCAACGTAGCCCCCTGGCTGTGCAAGCCCTGACTCCCTCATGGTGCCTCGGAGAGTGGGG
AGCATATTGGGCTGGGGTAAGCACTAGACCAAGTAGACTGGACACAAAGGGCTCGCCCAGGGCCCTGGCGCCAC
CCCCACCCCTTCCACCAGCTGCTGCTAGCCTCTGTGGTTGTACATCCCACTTGCCCCACACGGAGACTGACTC
TAAACCCCTTATCCAATGGTGCTAACCCCCGGCTCTCCCTGCCCCACCTCACCCACCCAGAGAAGCACAGACC
CCGCCAGGGGCAGGGGCCACCGCACACCCCTTGTCCCGGGCTGTCTGGGACTGGCCTTCCCGGCTCAGCCAGTG
AGGCTCAGAAGGGACACAAAGAGGGATGGAAGAAAAGAACAAAGAGAACTGTTCTCCACCCCTTCCCTGAT
GCCAGGGGCACCAGACTGATTCTGAGGCACAAATAAAGAGGGCTTCATACCGG

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FIGURE 4756

MTWQRGNRSFVFRGQDTSAVVMEIDHRRVVYTETLALAGQDRELLAAAQPTEEQVLSRLTAPVVTTQLDTKNI
SFERNKTGILGWRSEKTEMVNGYEAKVYGASNVELITRTRTEHLSEQHKGKVKGCKTPLQSFLGIAEQHGQPQNG
TLITQTLSQLANPTAITAEYFNPNFELGNRDMGRPMELTTKTQKFKAKLWLCEEHPLSLCEQVAPIIDLMAVSNA
LFAKL RDFITLRLPPGFPVKIEIPIFHILNARITFGNLNGCDEPVPSVRGSPSSETPSPGSDSSSVSSSSSTTSC
RGCEISPALFEAPRGYSMMGGQREAA TRDDDDLLQFAIQQSLLEAGSEYDQVTIWEALTNSKPGTHPMSYEGRR
QDRSAPPTPQRQPAPPASVPSRPSSGPGSGGHVFRSYDEQLRLAMELSAQEQEERRRRARQEEEELERILRLSL
TEQ

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FIGURE 4757

TCGCCGCTGAGGATGTCCCGAAAGGGGCCGCGAGCGGAGGTGTGTGCGGACTGCAGCGCCCCGGACCCTGGCTGG
 GCATCCATCAGCAGGGGTGTGCTGGTGTGTGACGAGTGTGTGACGCGTGCACCGGAGCCTGGGACGCCACATCTCC
 ATTGTCAAGCACCTTCGCCACAGCGCCTGGCCTCCCACGCTGTGTGACAGATGGTGCACACGCTTGCCAGCAACGGG
 GCCAACTCCATCTGGGAGCACTCCCTGCTGGACCCCGCACAAGTGCAGAGCGGGCCGGCGTAAAGCCAACCCCCAA
 GACAAAGTCCACCCCATCAAGTCAGAGTTTCATCAGGGCCAAAGTACCAGATGCTGGCATTGTGTGCACAAGCTTCCC
 TGCCGGGACGATGATGGAGTCAACGCCAAAGACCTCAGCAAGCAACTACACTCGAGCGTGCAGGACAGGCAACCTG
 GAGACATGTCTGCGCCTGCTCTCCCTGGGTGCCAGGCCAACTTCTTCCACCCAGAGAAGGGCACACACCTCTG
 CACGTGGCTGCCAAGGCAGGACAGACACTGCAGGCCGAGCTGCTTGTAGTGTATGGGGCTGACCCTGGCTCCCCT
 GATGTTAATGGCCGCACACCCATTGACTATGCCAGGCAGGCGGGGACCATGAGCTGGCGGAAAGGCTGGTTGAG
 TGCCAATATGAGCTCACTGACCGGCTGGCCTTCTACCTCTGTGGACGCAAGCCGGATCACAAGAATGGGCATTAC
 ATCATCCACAGATGGCTGACAGATCTCGGCCAAAAGTGCATGTCTCAGAGCCTTGACTTATCCGAATTGGCCAAA
 GCTGCTAAGAAGAAGTGCAGGCGCTCAGCAACCGGCTTTTGTAGGAACTCGCCATGGACGTGTATGACGAGGTG
 GATCGAAGAGAAAAATGATGCAGTGTGGCTGGCTACCCAAAACACAGCACTCTGGTGACAGAGCGCAGTGCCTG
 CCCTTCTGCGCTGTAAACCCGGAATACTCAGCCACGCGGAATCAGGGGCGACAAAAGCTGGCCCGCTTTAATGCC
 CGAGAGTTTGCCACCTTGATCATCGACATTCTCAACAACCTCGAGCTGTCTCTGCGGAGCCAGAGTGACCTCGAC
 GACCAACACGACTACGACAGCGTGGCCTCTGACGAGGACACAGACCAGGAGCCCCCTGCGCAGCACCGGCGCCACT
 CGGAGCAACCGGGCCCGGAGCATGGACTCCTCGGACTTGTCTGACGGGGCTGTGACGCTGCAGGAGTACCTGGAG
 CTGAAGAAGGCCCTGGCTACATCGGAGGCAAGGTGCAGCAGCTCATGAAGGTCAACAGTAGCCTCCAGGCGAGAG
 CTCCGGAGGCTGCAGCGAGAGATCCACAAGTGCAGGCGGAGAACCTGCAGCTCCGGCAGCCTCCAGGGCCGGTG
 CCCACACCTCCACTCCCCAGTGAACGGGCGGAACACACACCCATGGCGCCAGCGGGAGCACACACCGCAGGGAT
 CGCCAGGCCTTTTCCATGTATGAACCTGGCTCTGCCCTGAAGCCCTTTGGGGGCCCCCTGGGGACGAGCTCACT
 ACGCGGTGCGACCTTTCCACAGCACTGAGCTAGAGGACGACGCCATCTATTAGTGACAGTCCCTGCTGGCCTT
 TACCGGATCCGGAAGGGGTGTCTGCCCTCAGCTGTGCCCTTCACTCCCTCCTCCCCGCTGCTGTCTCTGCTCCAG
 GAGGGAAGCCGACACAGCAAGCTTTCCCGCCACGGCAGTGAGCCGACAGTGACTATGAGAACACGCAAGT
 GGGGACCCACTGCTGGGGCTGGAAGGGAAGAGGTTTCTAGAGCTGGGCAAGAGGAAAGACTTCCACCCAGAGCTG
 GAAAGCCTGGATGGAGACCTAGATCCTGGGCTTCCAGCACAGAGGATGTCATCTTGAAGACAGAGCAGGTCACC
 AAGAACATTAGGAACGTGTGCGGGCAGCCCAGGAGTTCAAGCATGACAGCTTCGTGCCCTGCTCAGAGAAGATC
 CATTGGCTGTGACCGAGATGGCCTCCCTCTTCCCAAAGAGGGCCAGCCCTGGAGCCAGTGCGGAGCTCACTGCGG
 CTGCTCAACGCCAGCGCCTACCGGCTGCAGAGTGAGTGCCGGAAGACAGTGCCCCCAGAGCCCGGCGCCCCAGTG
 GACTTCCAGCTGCTGACTCAGCAGGTGATCCAGTGCGCCTATGACATCGCCAAGGCTGCCAAGCAGCTGGTCACC
 ATCACCACCCGAGAGAAGAAGCAGTGACCTCTCTCCCCACACCTCACCTGCACCTAGGACCTCACTGGCCATA
 GGAGCTGGGGCACTCCAGACATTAATCCCCACCCCAACAGAGCCACTGGCACAAGTGCCCTTAGTGCTGCCACAC
 TCCCTGGCAGCCAGGTGCCCTGGTGCCACCCCTGTGAGCCCCCTAAGGATGGGGAGGTGGGGGGGAGGAGCT
 TCTGTCCCCACATTCCATGCACCTCCCTCTGTATATAGCATCTCCCCCTCCTAGTGAGCAGGGGCTGCAAG
 GCATCACTCCCAGCCCCCTCGCCTTCTAGGGCACCCCTCAGCAAAGGGGCAGGTGGGGACACTCCAAGTGGGGCAGC
 TCTCCGTACATGCGCCCCACCCCATGAGCCAGTTCAGCCCTACTGGGGGCTGAGCGGGGGCATCCCCCTCCTTG
 TACATAGTCTCCATGGATGTCCCTGCCCTGTAGCCACCAGCCCCCTGCTGCTCTCCCTTTAATGCCATATGGCCC
 CTGCTAGGGCACAGGCCCCAACCTGTGTGCTGGGGTCCCCAGCAGCAAACACTGGAAGTCTGTTTTTTTTTTT
 TCTTTCTTTCCCCACCCCTTAATTTTAACTTTGTGGTAAGTGTGCCCCGCGTGCTGCGTGTGTGAGTGTG
 TGGGCGGCAGTGCCGTTCCGGAGGCTGGTCCATCTGGAGTTTTGAGGGGTGAGGGGACCAGAGCAGTGGGACCA
 GCATGGGGATCAGCTTCCCTTCCCCACCTGGAGCCAGGACTGTCCGGGTAGCCAGTTTGTGCTGCCAGCTGC
 CTCCCTGATCCCTCCCCACTCTCGCCCCCTTCTCTATGAACCTAAATCAAAAACCACTTCCCTCCATCTCCTCTG
 CTCTGCGTGGAGGGGGAATGTGTGCTGGCTAGGGTGGAGGACTGAGCACCTGAGCCTGGGGCTGGCTCCCCGGG
 GTCCCCGACTCAGCTGGTGGCTGTGGAGCTGAGTCCCCTCCCCGTAACCTCTGCAAGGCCAGCACCCACCATCAC
 TACCTGCACCTGCTGTGGTCCCACCTCTGGAGGCTGGGAACCTGGCTGCAGCCTGGGAAGGCTGGAGAGGCAG
 ACGGTGGGACCCACAGCTCTCTCCCATCCCGCTTCTCCCTGGGGGCCAGGCCCTACCTGTGTGGTGGTGGGT
 GGGCTGTCAAGACGTGTCTATGATCAAAAATAAAGAAGTGACCATG

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FIGURE 4758

AGCCCTCGCGGGGGCAAGGCGGCGACCGAGGCGCGTGGGTCTGGGAAGGCGCGCGGATTTGGCCCCCTCTTCTCAC
ATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCGGCAACCAGGCGCTGCGTGGAGTGGCTGCTGGGC
CTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTGCTGCCGCGCGAGCTCTACCCA
GTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCCCCAGCCTGG
TTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTTAGCTGCCTTTCTTTCCCATTTGCAACGTATGCCTTCCTCAA
GGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTCACACCATGACAACCTTAATTCCGATACTC
TCCACATTTCTGTTTTGAGGATTTCTCCAAAGCCAGTGGTTTTCAAGGGACAAAGACCTGAGACTTTGCATGAACGG
TTAACCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTTCATACTTTTAATTTTCAATGTTGCGGAGCCCC
TACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCAGGGTAGAGATGCCTACAGG
GTGGTTGCTTGTGGATACAATAACAAGGAACACTGCTCAGAACCACAGTCTTCAGCAGCATTGAAACACTGGCA
GCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCCTCACCTTCTTCCATTTTTTTTTTTTTTTAA
GACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCCGCCTCC
TGGGCTCAAGCCATCTTCCCTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCTAATTTG
TTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGGCTCAAG
TGATCTGCCCACCTCAGTCTCCCTAAGTGTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACCTTCACC
TTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATAAGGAAG
TGGTACCAAATAACTGTGTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAAACTGCTAAAG
AACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCTCCACTCCT
GATTCTCAAGAGTGATCACCCTGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGAAATTTTG
CCTCTTTAATGTTAATTCAAACCTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAGAGAAAAAC
ATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAAATGGATT
AAACTGGAAAAATGTTTTTGTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGTGCTTTTA
AATTAGTTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCTGAAGTCT
AGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAAACAGTTCCGT
CATTCCCATCTTGTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACATATCCACTGTGTGCATAGAGGGTCT
CTTCACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAACCTTAAATGATGTTAGA
CAACAGGTCCCAGTCAGTTCCCTCTATTTTACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGTGGTACTG
TCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCTG

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FIGURE 4759

MKRKEKKNEGNNHWPRVEMPTGWLLVGYNTRNTAQNPRLQQHLKHWQQCTRARWCQEPQTLTFFHFFFFFFKTVS
LCCPGWSKQWHDLGSLQPPPPGLKPSSLASQVARTTGVIYQHVWLICFVFFVCVETGFCHVAQVGLERLGSSDLP
TSVSLSAGITDVNHWAQPKPSPSKGTGMNRP IGLRVGKGVWARL

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FIGURE 4760

GCCACCCAGCTGAGAGGAGAGGCGCCCCGGGGACGCACTGAGATTATGAGGCTCTGGCCTCCACTGGCCACTCA
CTCGTGACCCTTTCCACCACGGCGGAGCCTTTCCAAGCCTACCTCCTGCCGTGTGGTGATCTACCTGCAGCGGGAG
ATGTCGGGGGACACCTGCCTGTGCCCAGCCTCAGGGGGCCAAGCCCAAGCTCAGTGGCTTCAAGGGAGGAGGGTTG
GGCAACAAGTATGTCCAGCTCAACGTGGGCGGCTCTCTGTACTACACCACTGTGCGGGCCCTGACCCGCCACGAC
ACCATGCTCAAGGCCATGTTTCACTGGGCGCATGGAGGTGCTGACCGACAAAGAAGGCTGGATCCTCATAGACCGT
TGTGGAAGCACTTTGGCACCATTTTGAATTACCTCCGAGATGACACCATCACCTCCCTCAGAACCAGGCAAGAA
ATCAAGGAATTGATGGCTGAAGCAAAGTATTACCTCATCCAGGGGGCTGGTGAATATGTGCCAGAGTGCCCTGCAG
GACAAGAAGGACTCCTACCAGCCTGTGTGCAACATCCCCATCATCACATCCCTAAAGGAGGAGGAGCGGCTCATC
GAATCCTCCACCAAGCCCGTGGTGAAGCTGCTGTACAACAGAAGCAACAACAAGTATTCTACACCAGCAACTCT
GACGACCACCTGCTGAAAAACATCGAGCTGTTTGAAGCTCTCCCTGCGCTTCAACGGCCGCGTGCTCTTCATC
AAGGATGTCAATTGGTGACGAGATCTGCTGCTGGTCTTTTATGGCCAGGGCCGTAAGCTGGCAGAGGTGTGCTGT
ACCTCCATCGTGTATGCCACGGAGAAGAAGCAGACCAAGGTGGAATTTCCAGAGGGCCGAATCTATGAGGAGACA
CTCAACGTCCTACTCTATGAGACTCCCCGCGTCCCCGACAACCTCCTTGTGGAGGGCCACAAGCCGTAGCCGCAGC
CAGGCTTCCCCCAGTGAAGATGAGGAGACCTTTGAACTGCGGGACCGTGTCCGCCGCATCCACGTCAAGCGCTAC
AGCACTTACGATGACCGGCAGCTCGGCCACAGTCTACCCATCGCGACTGACCAGACCCCTCAGGGAGTCAGGGCA
CGGGAGGCCCTATCTCCCATCCTGTGGAACCCGCCCATTTGGCCACCCCATGCTGCTGCTGCTGCTGGGTCTCTGCT
CTAGCACCAGAGGCATGACAGGCCCTGCTCAGAGGTGAGAGGGTCTGGGCAGAGGAGGGACCACATTCCCCTGC
CTTGCCCTGAGCACTTCTGGAGACTGCGTCTGTCTATCTGCTCACCATCACCTTCTGCCCCGACGGAGCTG
CTTCTGCTCCCTGGGGCATATGGACTGACCCACCTCCTGCTGAGAACCTTCCCCTAGGCCCTGTGCAGAAAGGCTA
CTGCCCCCTTAGGCCTCAGCTGGGGGAAAGGCAGTTCTGGTGCTGTAGAGGCCCTGGTGCAGAAAGTGGGACGTCT
TTTTCTTAAGGTGTTTAAAGCACAGGCTTGATAAGTTTGGTTTTTAAAAAATAATCTAGGAAATGAATAATTCTA
AATCTAGTAATGAGGAACTGAGCATTCTTTTGGCCTCCAGGGTGCCAAGACCCTACATATGACAGAACCCTTG
GCCCTTCTCCATGCCTGTGGGATCTGTTTCTTTAAAGCACTTTGTACTGTTATTACAGGAGGTTGATAATCTCCTT
GACCCATGCTTTTCTACCTAATCCCCACTTCCCTGCAGAATCAATCTGAGGGAGGGGATAAAGAGGAAGCAATA
AAAAAAAACATCCGACAGAGCAGCTCTGGCTTTGACGCTGGCCAGCAGCTCAGAGTGCACCGAGGAGGGAAGG
ATGGCTAAGCTGGGACCGGCAGTCCCTCACAGGGTGCTGTGAGAAAGGACATTTTACCCCAACATCATAGTCACA
TCACTGACTCCTAGGTCTAGCAGACTGCTCTTTGTGATTCTCTTGAGTACCCTTGGCTTCCAGCCATGCTGTCC
TCACATACGGTAAAGCCAAAGAGCTGTACATGGGCCAGAAAGTGTAGCCACGGCAGGAGACCGTGGAGCCCGT
GGGCACTGCATGGTGTGGCTGGCATGCCATCAGCTGAGGACAGCAAACCTCCAGCAGCCCTACAGAGGTGGC
ACATGCTTGGCCACACATCTACTCCCTGCCACACCATCTATGCTCTTGGTTGGTGTGGCTGGGATGGCGGTTT
TGCCAGTGGTGTCTCTGAGCGCGGGATGACAGGAGCAACCGAAGCACCCCTGAAGGCCTTCACTCCTTGTGGGT
AACTCAGCCATGGAGATGCCAAGCACTAGCCAGGAGGTGAGTTCTCTTTAGGGCTTTGGTTTTTCATTCTTTT
GTTTGGCTTGGCCAAACCAGAATTACAGCTTATCTGAATTATTTTCAAAGGAATGCTGTGAGGAGGGACTGTTT
TGCCAGCCTAACAAAGCAACGTAGCCACGTATAGTACCCACTTTCTGCTCTTTGGAGAGAACACAGGTTATCAAG
TTCATCTCTCTTGACTACTCTTATGATAGCTGATGCCACAGAGCCTATGGGCAAATGCCAGACCCAGGGTTAGAC
ACAAGGACCTGAAGTGACATGACGGCGGGACAGGGGAAATGTGACTTTCTAATTAGGCATTTTATGTTAGTCACA
GTCTTGAATGTATAAACAGCACTAAGACTCTCAGGTGAGGTACCTTGGTGATCAGCTACTAGTTCTTCCAGCCCT
CATTGAGGTAACAAGATAAAGACAAATCCACTTCTTTGGCCAAATTCAGGCTTTGGCTTTATGACTTTCCACAG
AGACTGGAATGCGTCAGCCTGAGACCACTGGCCTATTTTCTCAGCTGCCCTCTTGAGGTCTTTAACACTCAAA
TCCCAGCTCCCCACTGAGGTGTTGTGATGCTTGGCTTTTGACCTCCCCATCCCCCTTAGTCCCTGCTTACTACTT
TGACATTACATCCTCAGTGTCTCAGTCTTTTTTGCCGAGAAAGCACAGTAGTCTGGGACTGGGCATTTATCTTC
TCTGACTGAAAATCTCTCCTTGGTCTTAAGGAAAATACTAACATTGAACTCACTGACATGATCTTAGCTTCTTTA
ATCAGACTTTGTGACTTAAAGTTTGGGGTTTTCTTTGAAAGTTTCCAGCCCTATTAGAAAGCAACTCTTGGC
TGTGTGCAATTTTCAACTCCAAGCAGCCCAGGGGTAAGTAAACAAAGTATGGATGAAGGTCAGATTTTCTGTCA
GTTTCTGAGAAACCTGGCAGCCTGCTGTAAACAACACAGGCCAGTATTGGGTTTTATTGAATTTGGTATGTGACC
AAGGTGCGCCTAAAGGATGGCGCAGGTCTGGGCAGGAAAGAAATTTTCTTTATCACATAACTGTAATATTTGG
TTGCTCAGCATAAGTGATGGAAGCAAACACTAATTTCTAATAAAATGTGTTAAACTC

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FIGURE 4761

CCGCGGGTCGGGCTCTGTGTCAGCAGCCGGGCGGGCGCTCGGGCGGGACATGGCAGCCTGTACAGCCCCGGCGGGC
CCTGGCCGTGGGCAGCCGCTGGTGGTCCCGGTGCTGACTGGGGCCCGGTGGCCAAGGCCGCTCTGTGCGGCGGC
CGGAGCTGGAGCCTTCTCGCCAGCGTCGACCACGACGACGCGGAGGCACCTCTCGTCCCGAAACCGACCAGAGGG
CAAAGTGTGGAGACAGTTGGTGTGTTTGAGGTGCCAAAACAGAATGGAAAATATGAGACCGGGCAGCTTTTCTT
TCATAGCATTTTTGGCTACCGAGGTGTCTGCTGTTTCCCTGGCAGGCCAGACTGTATGACCGGGATGTGGCTTC
TGCAGCTCCAGAAAAAGCAGAGAACCCTGCTGGCCATGGCTCCAAGGAGGTGAAAGGCAAAACCTCACACTTACTA
TCAGGTGCTGATTGATGCTCGTGACTGCCCACATATATCTCAGAGATCTCAGACAGAAGCTGTGACCTTCTTGGC
TAACCATGATGACAGTCGGGCCCTCTATGCCATCCCAGGCTTGGACTATGTCAGCCATGAAGACATCCTCCCCTA
CACCTCCACTGATCAGGTTCCCATCCAACATGAACCTCTTGAAGATTCTTCTGTATGACCAGACAAAAGCACC
TCCTTTTGTGGCTCGGGAGACGCTAAGGGCCTGGCAAGAGAAGAATCACCCCTGGCTGGAGCTCTCCGATGTTCA
TCGGGAAACAACCTGAGAACATACGTGTCACTGTCTATCCCTTCTACATGGGCATGAGGGAAGCCAGAAATCCCA
CGTGTACTGGTGGCGCTACTGTATCCGTTTGGAGAACCTTGACAGTGATGTGGTACAGCTCCGGGAGCGGCACTG
GAGGATATTAGTCTCTCTGGCACCTTGGAGACAGTGCGAGGCCGAGGGGTAGTGGGCAGGGAACCAAGTGTATC
CAAGGAGCAGCCTGCGTTCCAGTATAGCAGCCACGTCTCACTGCAGGCTTCCAGTGGGCACATGTGGGGCACGTT
CCGCTTTGAAAGACCTGATGGCTCCCACTTTGATGTTCCGATTCTCCCTTCTCCCTGGAAAGCAATAAAGATGA
GAAGACACCACCCTCAGGCCTTCACTGGTAGGCCAGCTGAGGCCCAAGTGCCCAAGGCTTGGTCACCGGGAAGAA
CAACTCTCATCCCAACAATTGCTGCAGAACTCTTCTCTCCCATCATGGGCCACAGTGGGTCTCTTAATTTGATTG
TGGGGTTCTTTTGTGGGGAGGGGTGGTATAACTTTCTTCAGAAGACCCATGTGGGACACCTCCAAGGCTGGCC
TCCTCATAAGCCCTGCCTACACCATGTTCCAGTAAACCTCTCCACCAAGGAAGTGTGTTCACTGCCACAGGCCT
GGAGGAGTTTCTGGCCTGTACGTGAGGTTTGATCAGTAAACCAAGTGCACGCTTGGCCACCTTGCCATTTCTG
CTCCCAGAGTCTCAGGCTCCCCTTCTGACCCAGTGTGCGCCCTTGACTGCTTTCTTTGCTGCCCTTCCAGGGAGC
TGCCCCCCTGGTAGGGCATGTGCCTGTTTCCCTCTCAGCCTGGAGGCTGGCTGGACATCTCCTAGGGTCACTGTG
CCTCTCAGCTAGTTGGCGGGGGTGTGGACTGGACTCTGTTCACCTTACCTTCTGCCAAATGCAGAGAGGGAGG
CCAGTGTGAGGGTCGGAGTGGCCTGGCTCTTAGCACTGACCGACCATTGCCATTTCTGGCCTCGCTAGGCCCAGG
AGAGGAGGGAGGCAAGCCAGTCGGGTTTCTGGAGCAATGGGTGTGCCAGCCCTCAGCATGACTCTGCCAAGCAT
CCAGACCACAAATGCAGGAATTTGGCTGAGGAGCAGCTTTAGGTATGGATTGATGACTAAGTCAAGCTACTTCTT
GAGCTTCTCTCAGATTTCCAAGAGCCAGAGATGAATTGTGCTGCATCTTGCCCCAATTCTTAGGATTTCTTTTCC
TCCGCCACTGCAGTGATTGTTAGAGGTAGTTTTCTTGAATTAATATTAAATCACAGTTCAGCCCTGTAAAAAAA

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FIGURE 4762

MAACTARRALAVGSRWWSRSLTGARWPRPLCAAAGAGAFSPASTTTTTRHLSSRNRPEGKVLETVGVFVFPKQNG
KYETGQLFLHSIFGYRGVVLFPWQARLYDRDVASAAPEKAENPAGHGSKEVKGKTHTYQVLIDARDCPHISQRS
QTEAVTFLANHDDSRALYAIPGLDYVSHEDILPYTSTDQVPIQHHELPERFLLYDQTKAPPFVARETLRAWQEKNH
PWLELSDVHRETTENIRVTVIPFYMGMREAQNSHVYWWRYCIRLENLSDVVQLRERHWRIFSLSGTLETVRGRG
VVGREPVLKSKEQPAFYSSHVSLQASSGHMWGTFRFRERPDGSHFDVRIPPFSLESNKDEKTPPSGLHW

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FIGURE 4763

CAATCATGGATCAATAGCTATGTTTGGAGAAGGAATTTGTGGCTGCTCCAGCTACTGGGCATTTTGTCTGGTCCA
GTTTCATGTAATCTCCCAACACCCCATGAAGCAAGGCTTTGTTAATCCTATTTTACTGAAAATGAACTAAGACTCA
GAGAGATAAAGCTGTTGCCCAATGAGCCTTCTTTCTGCCCTCCAGATCCACGGTGCTAATTCCCCTTCCGATGAC
CTAATGATTCTGAGCTTGGCAAAGGTCTTATCTCCAGCTCGCCCAGGCCAGTGTTCAGGAATGTGACCTTTG
CTGCAGCAGCCGCTGGAGGGGGCAGAGGGGATGGGCTGGAGGTTGAGCAAACAGAGCAGCAGAAAAGGCAGTTCC
TCTTCTCCAGTGCCCTCCTTCCCTGTCTCTGCCTCTCCCTCCCTTCCCTCAGGCATCAGAGCGGAGACTTCAGGGGA
GACCAGAGCCCAGCTTGCCAGGCACTGAGCTAGAAGCCCTGCCATGGCACCCCTGAGACCCCTTCTCATACTGGC
CCTGCTGGCATGGGTTGCTCTGGCTGACCAAGAGTCATGCAAGGGCCGCTGCACTGAGGGCTTCAACGTGGACAA
GAAGTGCCAGTGTGACGAGCTCTGCTCTTACTACCAGAGCTGCTGCACAGACTATACGGCTGAGTGCAAGCCCCA
AGTGACTCGCGGGGATGTGTTCACTATGCCGGAGGATGAGTACACGGTCTATGACGATGGCGAGGAGAAAAACAA
TGCCACTGTCCATGAACAGGTGGGGGGCCCCCTCCCTGACCTCTGACCTCCAGGCCAGTCCAAAGGGAATCCTGA
GCAGACACCTGTTCTGAAACCTGAGGAAGAGGGCCCCCTGCGCCTGAGGTGGGCGCCTCTAAGCCTGAGGGGATAGA
CTCAAGGCCCTGAGACCCCTTCATCCAGGGAGACCTCAGCCCCCAGCAGAGGAGGAGCTGTGCAGTGGGAAGCCCTT
CGACGCCCTTACCGACCTCAAGAACGGTTCCCTCTTTGCCTTCCGAGGGCAGTACTGCTATGAACTGGACGAAAA
GGCAGTGAGGCCCTGGGTACCCCAAGCTCATCCGAGATGTCTGGGGCATCGAGGGCCCCATCGATGCCGCCTTCAC
CCGCATCAACTGTCAGGGGAAGACCTACCTCTTCAAGGGTAGTCAGTACTGGCGCTTTGAGGATGGTGTCTCTGGA
CCCTGATTACCCCGAAATATCTCTGACGGCTTCGATGGCATCCCGGACAACGTGGATGCAGCCTTGGCCCTCCC
TGCCCATAGCTACAGTGCCGGGAGCGGGTCTACTTCTTCAAGGGGAAACAGTACTGGGAGTACCAGTTCAGCA
CCAGCCCAGTCAGGAGGAGTGTGAAGGCAGCTCCCTGTGGCTGTGTTTGAACACTTTGCCATGATGCAGCGGGA
CAGCTGGGAGGACATCTTCGAGCTTCTCTTCTGGGGCAGAACCTCTGCTGGTACCAGACAGCCCCAGTTCATTAG
CCGGGACTGGCACGGTGTGCCAGGGCAAGTGGACGCAGCCATGGCTGGCCGCATCTACATCTCAGGCATGGCACC
CCGCCCCCTCCTTGGCCAAGAAACAAAGGTTTAGGCATCGCAACCGCAAAGGCTACCGTTTCAACGAGGCCACAG
CCGTGGCCGCAACCAGAAGTCCCGCCGGCCATCCCGCGCCATGTGGCTGTCTTGTCTCCAGTGAGGAGAGCAA
CTTGGGAGCCAACAACATATGATGACTACAGGATGGACTGGCTTGTGCCTGCCACCTGTGAACCCATCCAGAGTGT
CTTCTTCTTCTCTGGAGACAAGTACTACCGAGTCAATCTTCGCACACGGCGAGTGGACACTGTGGACCCTCCCTA
CCCACGCTCCATCGCTCAGTACTGGCTGGGCTGCCAGCTCCTGGCCATCTGTAGGAGTCAGAGCCCACATGGCC
GGGCCCTCTGTAGCTCCCTCCTCCCATCTCCTTCCCCCAGCCCAATAAAGGTCCCTTAGCCCCGAGTTTAAA

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FIGURE 4764

MAPLRPLLILALLAWVALADQESCKGRCTEGFNVDKKQCDELCSYYQSCCTDYTAECKPQVTRGDVFTMPED
TVYDDGEEKNNATVHEQVGGPSLTSDLQAQSKGNPEQTPVLKPEEEAPAPEVGASKPEGIDSRPETLHPGRPQPP
AEEELCSGKPFDAFTDLKNGSLFAFRGQYCYELDEKAVRPGYPKLIRDVWGIEGPIDAAFTTRINCQGKTYLFGKS
QYWRFE
DGVLD
PDYPR
NISDG
FDGIP
DNVDA
ALALP
AHSYS
GRERV
YFFKG
KQYWE
YQFQH
QPSQE
ECEGS
SLSA
VFEHF
AMMQ
RDSWE
DIFEL
LFWG
RTSAG
TRQP
QFISR
DWHG
VPGQ
VDAA
MAGRI
YISGM
APRPS
LAKK
QRF
RHRN
RKG
YRSQ
RGHS
RGRN
QNSR
RPSR
AMWLS
LFS
SEES
NLGANN
YDDY
RMDW
LVPAT
CEPI
QSV
FFF
SGDK
YYRV
NLRT
RRVD
TVDP
PPYPR
SIAQ
YWL
GCPA
PGHL

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FIGURE 4765A

ACAGACGGCGGGTGAACATGGCGTCTCGACTTGGTCTGAGACGTGATAGGCCTGCCTTCTGGTTGAAGATGTGG
CGAGTGAAAAAACTGAGCCTCAGCCTGTGCGCTTTCGCCCCAGACGGGAAAACCATCTATGAGAACTCCTCTCCGT
GAACTTACCCTGCAGCCCCGGTGCCCTCACCAACTCTGGAAAAAGATCCCCCGCTTGCTCCTCGCTGACCCCATCA
CTGTGCAAGCTGGGGCTGCAGGAAGGCAGCAACAACCTCATCTCCAGTGGATTTTGTAAATAACAAGAGGACAGAC
TTATCTTCAGAACATTTTCAGTCATTCTCAAAGTGGCTAGAAACTTGTGAGCATGAATCAGATGAGCAGCCTCTA
GATCCAATTCCCCAAATTAGCTCTACTCTCTAAAACGTCTGAGGAAGCAGTAGACCCACTGGGCAATTATATGGTT
AAAACCATCGTCTCTTGTACCATCTCCACTGGGGCAGCAACAAGACATGATATTTGAGGCCCGTTTTAGATACCATG
GCAGAGACAAAACAGCATATCTTTAAATGGACCTTTGAGAACAGACGATCTGGTGAGAGAGGAGGTGGCACCCCTGC
ATGGGAGACAGGTTTTTCAGAAAGTTGCTGCTGTATCTGAGAAACCTATCTTTTCAGGAATCTCCGTCCCCTCTCTTA
GAGGAGTCTCCACCAAATCCCTGTTCTGAACAACCTACATTGCTCCAAGGAAAGCCTGAGCAGTAGAACTGAGGCT
GTGCGTGAGGACTTAGTACCTTCTGAAAGTAACGCCTTCTTGCCCTTCTCTGTTCTCTGGCTTTCCCTTCAACT
GCCTTGGCAGCAGATTTCCGTGTCAATCATGTGGACCCAGAGGAGGAAATTTGTAGAGCATGGAGCTATGGAGGAA
AGAGAAATGAGGTTTTCCACACATCCTAAGGAGTCTGAAACAGAAAGATCAAGCACTTGTCTCAAGTGTGGAAGAT
ATTCTGTCCACATGCCTGACACCAAATCTAGTAGAAATGGAATCCCAAGAAGCTCCAGGCCCAGCAGTAGAAGAT
GTTGGTAGGATTTCTGGCTCTGATACAGAGTCTTGATGTCCCCACTGGCCTGGCTGGAAAAAGGTGTAAATACC
TCCGTATGCTGGAAAAATCTCCGCCAAAGCTTATCCCTTCCCTCGATGCTTCGGGATGCTGCAATTGGCACTACC
CCTTCTCTACTTGCTCGGTGGGGACTTGGTTTTACTCCTTCAGCACCACAGGAAAAGAGTACAAACACATCCCAG
ACAGGCCTGGTTGGCACCAAGCACAGTACTTCTGAGACAGAGCAGCTCCTGTGTGGCCGGCCTCCAGATCTGACT
GCCTTGTCTCGACATGACTTGAAGATAACCTGCTGAGCTCTCTTGTCTATTCTGGAGGTTCTCTCCCGCCAGCTT
CGGGACTGGAAGAGCCAGCTGGCTGTCCCTCACCCAGAAACCCAGGACAGTAGCACACAGACTGACACATCTCAC
AGTGGGATAACTAATAAACTTCAGCATCTTAAGGAGAGCCATGAGATGGGACAGGCCCTACAGCAGGCCAGAAAT
GTCATGCAATCATGGGTGCTTATCTCTAAAGAGCTGATATCCTTGCTTCACCTATCCCTGTTGCAATTTAGAAGAA
GATAAGACTACTGTGAGTCAGGAGTCTCGGCGTGCAGAAACATTGGTCTGTTGCTGTTTTGATTGCTGAAGAAA
TTGAGGGCAAAGCTCCAGAGCCTCAAAGCAGAAAGGAGGAGGCAAGGCACAGAGAGGAAATGGCTCTCAGAGGC
AAGGATGCGGCAGAGATAGTGTGGAGGCTTTCTGTGCACAGCCAGCCAGCGCATCAGCCAGCTGGAACAGGAC
CTAGCATCCATGCGGGAATTCAGAGGCCTTCTGAAGGATGCCAGACCCAACTGGTAGGGCTTCATGCCAAGCAA
GAAGAGCTGGTTTCAGCAGACAGTGAGTCTTACTTCTACCTTGCAACAAGACTGGAGGTCCATGCAACTGGATTAT
ACAACATGGACAGCTTTGCTGAGTCGGTCCCGACAACCTCACAGAGAACTCACAGTCAAGAGCCAGCAAGCCCTG
CAGGAACGTGATGTGGCAATTGAGGAAAAGCAGGAGGTTTTCTAGGGTGCTGGAAACAAGTCTCTGCCAGTTAGAG
GAGTGCAAAAGGCCAAACAGAACTGAGGTTGGAACAGTCTGCTAGCAACAGATCTCCGGGCTCAGTTGCAG
ATTCTGGCCAAACATGGACAGCCAGCTAAAAGAGCTACAGAGTCAGCATACCCATTGTGCCAGGACCTGGCTATG
AAGGATGAGTTACTCTGCCAGCTTACCCAGAGCAATGAGGAGCAGGCTGCTCAXXXXXXXXXXXGAAGAGATGGCA
CTAAAACACATGCAGGCAGAACTGCAGCAGCAACAAGCTGTCTGGCCAAAGAGGTGCGGGACCTGAAAGAGACC
TTGGAGTTTGCAGACCAGGAGAATCAGGTTGCTCACCTGGAGCTGGGTGAGTTGAGTGTCAATTGAAAACCACA
CTGGAAGTGCTCCGGGAGCGCAGCTTGCAGTGTGAGAACCTCAAGGACACTGTAGAGAACCTAACGGCTAAACTG
GCCAGCACCATAGCAGATAACCAGGAGCAAGATCTGGAGAAAACACGGCAGTACTCTCAAAGCTAGGGCTGCTG
ACTGAGCAACTACAGAGCCTGACTCTCTTTCTACAGACAAAACCTAAAGGAGAAGACTGAACAAGAGACCCTTCTG
CTGAGTACAGCCTGTCTCCCACCCAGGAACACCCTCTGCCTAATGACAGGACCTTCCTGGGAAGCATCTTGACA
GCAGTGGCAGATGAAGAGCCAGAATCAACTCCTGTGCCCTTGCTTGAAGTGACAAGAGTGCTTTACCCGAGTA
GCATCAATGGTTTTCCCTTCAGCCCGCAGAGACCCAGGCATGGAGGAGAGCCTGGCAGAAATGAGTATTATGACT
ACTGAGCTTCAGAGTCTTTGTTCCCTGCTACAAGAGTCTAAAGAAGAAGCCATCAGGACTCTGCAGCGAAAAATT
TGTGAGCTGCAAGCTAGGCTGCAGGCCAGGAAGAACAGCATCAGGAAGTCCAGAAGGCAAAAGAAGCAGACATA
GAGAAGCTGAACCAGGCCTTGTGCTTGCCTACAAGAATGAAAAGGAGCTCCAGGAAGTGATACAGCAGCAGAAT
GAGAAGATCCTAGAACAGATAGACAAGAGTGGCGAGCTCATAAGCCTTAGAGAGGAGGTGACCCACCTTACCCGC
TCACTTCGGCGTGCAGGAGACAGAGACCAAAGTGCTCCAGGAGGCCCTGGCAGGCCAGCTGGACTCCAAGTCCAG
CCTATGGCCACCAATTGGATCCAGGAGAAAAGTGTGGCTCTCTCAGGAGGTGGACAACTGAGAGTGATGTTCTG
GAGATGAAAAATGAGAAGGAAAACTCATGATCAAGTTCCAGAGCCATAGAAATATCCTAGAGGAGAACCTTCGG
CGCTCTGACAAGGAGTTAGAAAACTAGATGACATTGTTTCAGCATATTTATAAGACCCTGCTCTCTATTCCAGAG

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FIGURE 4765B

GTGGTGAGGGGATGCAAAGAACTACAGGGATTGCTGGAATTTCTGAGCTAAGAAACTGAAAGCCAGAATCTGCTT
CACCTCTTTTTACCTGCAATACCCCCTTACCCCAATACCAAGACCAACTGGCATAGAGCCAAGTGAATAAATGC
TATTTAAATAAAGTGTATTTAATG

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FIGURE 4766

MWRVKKLSLSLSPSPQTGKPSMRTPLRELTLPQPGALTNSGKRSPACSSSLTPSLCKLGLQEGSNSSPVDFVNNKR
TDLSEHFSSHSSKWLETQCHESDEQPLDPIQIISSTPKTSEEAVDPLGNMVKTIIVLVPSPPLGQQQDMIFEARLD
TMAETNSISLNGPLRTDDLVREEVAPCMGDRFSEVAAVSEKPIFQESPSHLLSESPNPNPCSEQLHCSKESLSSRT
EAVREDLVPSESNAFLPSSVLWLSPLSTALAADFRVNHVDPEEEIVEHGAMEEREMRFPHPKESETEDQALVSSV
EDILSTCLTPNLVEMESQEAPGPAVEDVGRILGSDTESWMSPLAWLEKGVNTSVMLENLRQSLSLPSMLRDAAIG
TTPFSTCSVGTWFTPSAPQEKSTNTSQTGLVGTKHSTSETEQLLCGRPPDLTALSRHDLEDNLLSSLVILEVLSR
QLRDWKSQ LAVPHPETQDSSTQTDTS HSGITNKLQHLKESHEMGQALQQARNVMQSWVLISKELISLLHL SLLHL
EEDKTTVSQESRRAETLVCCCFD LLLKLR AKLQSLKAEREEARHREEMALRGKDAAEIVLEAFCAHASQRISQLE
QDLASMREFRGLLKDAQTQLVGLHAKQEELVQQT VSLTSTLQDWRSMQLDYTTWTALLSRSRQLTEKLT VKSQQ
ALQERDVAIEEKQEVSRVLEQVSAQLEECKGQTEQLELENSRLATDLRAQLQILANMDSQLKELQSQHTHCAQDL
AMKDELLCQLTQSNEEQAAQWQKEEMALKHMQAELQQQQA VLAKEVRDLKETLEFADQENQVAHLELGGQVE CQLK
TTLEVLRRERSLQCENLKDTVENLTAKLASTIADNQE QDLEKTRQYSQKLGLL TEQLQSLTLFLQTKLKEKTEQET
LLLSTACPPTQEHPLPNDRTFLGSILTAVADEEPESTPVPLLGSDKSAFTRVASMVSLQPAETPGMEESLAEMI
MTTELQSLCSLLQESKEEAIRTLQRKICELQARLQAQEEQH QEVQKAKEADIEKLNQALCLRYKNEKELQEV IQQ
QNEKILEQIDKSGELISLREEVTHLTRSLRRAETETKVLQEALAGQLDSNCQPMATNWIQEKVWLSQEV DKL RVM
FLEMKNEKEKLMIKFQSHRNILEENLRSDKELEKLDDIVQH IYKTLLSIPEVVVRGCKELQGLLEFLS

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FIGURE 4767

CCTTTGCCCTTTGAGGCTCTGTGGCTGTGGGGCTGAGTGGCATCATGGCGGCTCAGAAAGATCTCTGGGACGCCAT
TGTGATTGGGGCGGGGATCCAGGGCTGCTTCACTGCATACCACCTGGCCAAACACAGGAAGAGGATCCTCCTGCT
GGAGCAGTTCTTTCTACCACACTCCCGAGGAAGCTCCCATGGACAAAGCCGGATAATCCGAAAGGCGTACCTGGA
AGACTTTTACACCCGGATGATGCATGAGTGCTATCAGATATGGGCCCAGCTGGAGCACGAGGCTGGAACCCAATT
GCACAGGCAGACTGGATTACTGCTGCTGGGAATGAAAGAGAATCAAGAATTAAAGACAATCCAGGCCAATCTGTC
GAGGCAGAGGGTAGAACACCAGTGCTTTTCATCTGAGGAAGTGAAGCAACGTTTCCCAAATATTTCGGTTGCCAG
GGGAGAAGTGGGGCTCTTGGACAATTCCGGAGGAGTTATCTATGCATATAAGGCCCTCAGAGCCCTGCAGGATGC
AATTCGACAGCTAGGAGGCATAGTGCCTGACGGAGAGAAGGTGGTGGAGATAAACCAGGGCTACTGGTCACGGT
GAAAACCACCTCCAGGAGCTACCAAGCTAAGAGCTTGGTTCATCACAGCAGGTCCTTGGACCAACCAGCTCCTCCG
TCCCCTGGGCATTGAGATGCCTCTCCAGACCCTGCGGATCAACGTGTGTTACTGGCGAGAGATGGTTCTTGGGAG
CTATGGTGTGTCCAGGCCCTTTCCGTGCTTCCGTGTGGCTGGGCTTGTGTCCCCACCACATCTACGGACTGCCAC
AGGAGAGTACCCAGGGCTGATGAAGGTCAGCTATCACACCGCAACCACGCAGACCCTGAGGAGCGGGACTGCC
CACAGCACGCACAGACATCGGAGACGTCCAGATCCTGAGCAGCTTTGTCAGAGATCACTTACCTGATCTGAAGCC
CGAGCCTGCTGTCATTGAGAGCTGCATGTACACGAATACCCCTGATGAGCAGTTTATTCTCGATCGCCACCCAAA
GTATGACAACATTGTCAATTGGTGTCTGGATTCTCTGGGCACGGGTTCAAGCTGGCCCCTGTGGTGGGGAAGATCCT
GTATGAATTAAGCATGAAATTAACACCATCTTATGACTTGGCACCTTTTTCGAATCAGCCGTTTTCCCAAGCCTGGG
CAAAGCCCACCTTTGACCTCTGGCCAGAAGCCTCCCTTCTGTGCACAGGAGCCAGTTTACAGATGGAGAAGATG
TCTCAGATGAAGGGAGTGTCCCTGAGATATCATCTTTTCTTCTGCCTCGCCTGAATCCCCATAAACACCAGAT
GATTGAGTCTACCTTCTTTCTTGGCCCGCTCCCTTTTTCTTCTGCCTCACTTGAATCCCCGTAACACCAGAC
GATTGAGTCTACCTTCTTTCTTGGCCACCTCCCCATTCAAACTACTTTCTCGCTCCCAGAAGGTTGATCAGAT
ATTCTACAATCACAGAGTAGCAAGGACGTTTGAGATGGGTATATCAGTAAGAAGAGGGCACAAGAAGTGGCTCTG
GAGACCAAAGCAGTTGTTAAAAATTCTCTTGTGTTGGGGCCGGGTGTGGTGGCTCACACCTGTAATCTCGGCACT
TTGGGGGGCTGAGACAGGCGGATCACCTGAGGCCAGGAATTCAAGACCAGCCTGGCCAACATGGTGAAACCCTAT
CTCCACTAAAAATACAAAATTAGCTGGGTGTGGTGGCGCATGCCTGTAATCCCAGCTACTTGGGAGACTGAGGCA
AGAGAATCACTGAACCCGGGAGGTGGAGGTGGCAGTGAGCCGAGATTGCGCCATTGCACTCCAGCCTGGGCAA
AAGAGTGAGACTCTGTCTCAAAAAAAAAACAAAAACAAACCTCTTTGCTGGTATATTTGAAGAGCTTGGGA
TGGATTTGACTAAATCTGCCCCGAGGAGGGTGAACAAGGTGATCTCAGAGATCACTACTGCTCTTGGAGTTCCTT
CTCCTAAAGCTAAGGCCAGCCTCCATCACAATGCCCATAAATCTGGCTCGTCTTTGATGAACAATAAATATTT
GTTGAACAAATAAATAACTGCCCTGC

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FIGURE 4768

GCTTGACCACTATGCTATCATCAAGTTTCCGCTGACCACTGAGTCTGCCATGAAGAAGATAGAAGACAACAACAC
ACTTGTGTTTATTGTGGATGTTAAAGCCAACAAGCACCAGATTAAACAGGCTGTGAAGAAGCTGTATGACATTGA
TGTGGCCAAGGTCAACACCCTGATTTCGGCCTGATGGAGAGAAGAAGGCATATGTTGACTGGCTCCTGATTACGA
TGCTTTGGATGTTGCCAACAAAGTAAGTTTCCTTCCTACAAACCCCTTAATGCTCACCCCTTGGGTGCAAATGAT
GCATATGTTAGCGACCAAAGCCTGATCTTTGCTGATTAGTCATAATTAAGTACTGCACCCCTATCCTTGACAAA
CCTTATCCTCACATTCTCATTGCTTT

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FIGURE 4769

TCAGTGAAGGAGTCTTCAAGTGCCCTGAGGACCAGCTTCCTCTGGACTATGCCAAGATCTACCCAGACCCGGAGC
TGGAAGTACAAGTATTGGGCCTGCCTATCCGCTGCATCCACAGTGAGGAGGGCTGCCGCTGGAGTGGGCCACTAC
GTCATCTACAGGGCCACCTGAATACCTGCAGCTTCAATGTCAATCCCTGCCCTAATCGCTGCCCCATGAAGCTGA
GCCGCCGTGATCTACCTGCACACTTGCAGCATGACTGCCCCAAGCGGCGCCTCAAGTGCGAGTTTTGTGGCTGTG
ACTTCAGTGGGGAGGCCTATGAGAGCCATGAGGGTATGTGCCCCCAGGAGAGTGTCTACTGTGAGAATAAGTGTG
GTGCCCCGATGATGCGGCGGCTGCTGGCCCAGCATGCCACCTCTGAGTGCCCCAAGCGCACTCAGCCCTGCACCT
ACTGCACTAAGGAGTTCGTCTTTGACACCATCCAGAGCCACCAGTACCAGTGCCCCAAGGCTGCCTGTTGCCTGCC
CCAACCAATGTGGTGTGGGCACTGTGGCTCGGGAGGACCTGCCAGGCCATCTGAAGGACAGCTGTAACACCGCCC
TGGTGCTCTGCCCATTCAAAGACTCCGGCTGCAAGCACAGGTGCCCTAAGCTGGCAATGGCACGGCATGTGGAGG
AGAGTGTGAAGCCACATCTGGCCATGATGTGTGCCCTGGTGAGCCGGCAACGGCAGGAGCTGCAGGAGCTTCGGC
GAGAGCTGGAGGAGCTATCAGTGGGCAGTGATGGCGTGCTCATCTGGAAGATTGGCAGCTATGGACGGCGGCTAC
AGGAGGCCAAGGCCAAGCCCAACCTTGAGTGCTTCAGCCCAGCCTTCTACACACATAAGTATGGTTACAAGCTGC
AGGTGTCTGCATTCTCAATGGCAATGGCAGTGGTGAGGGCACACACCTCTCACTGTACATTCTGTGTGCTGCCTG
GTGCCTTTGACAATCTCCTTGAGTGGCCCTTTGCCCGCCGTGTCACCTTCTCCCTGCTGGATCAGAGCGACCCTG
GGCTGGCTAAACCACAGCACGTCAGTGAACCTTCCACCCGACCCAAACTGGAAGAATTTCCAGAAGCCAGGCA
CGTGGCGGGGCTCCCTGGATGAGAGTTCTCTGGGCTTTGGTTATCCCAAGTTCATCTCCCACCAGGACATTGAA
AGCGAAACTATGTGCGGGATGATGCAGTCTTCATCCGTGTGCTGTGTAAGTGGCCCGGAAGATCCTCAGCTGAG
TGCAGGTGGGGTTTCGAGGGGAAAGGACGATGGGGCATGACCTCAGTCAGGCACTGGCTGAACTTGGAGAGGGGGC
CGGACCCCCGTGAGCTGCTTCTGCTGCCTAGGTTCTGTTACCCCATCCTCCCTCCCCAGCCACCACCTCAGGT
GCCTCCAATTGGTGCTTCAGCCCTGGCCCCCTGTGGGGAACAGGTCTTGGGGTCATGAAGGGCTGGAAACAAGTGA
CCCCAGGGCCTGTCTCCCTTCTTGGGTAGGGCAGACATGCCTTGGTGCCGGTCACACTCTACACGGACTGAGGTG
CCTGCTCAGGTGCTATGTCCCAAGAGCCATAAGGGGGTGGGAATTGGGGAGGGAGAAAGGGTAGTTCAAAGAGTC
TGTCCTGAGATCTGATTTTTTCCCCCTTACCTAGCTGTGCCCCCTCTGGTTATTTATTTCTTAGTGCCAGGAG
GGCACAGCAGGGGAGCCCTGATTTTAAATAAATCCGGAATTGTATTTATT

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FIGURE 4770

MPGFDYKFLEKPKRRLLCPLCGKPMREPVQVSTCGHRFCDTCLQEFLSEGVFKCPEDQLPLDYAKIYPDPELEVQ
VLGLPIRCIHSEEGCRWSGPLRHLQGHLNTCSFNVI PCPNRCPMKLSRRDLPAHLQHDCPKRRLKCEFCGCD FSG
EAYESHEGMCPQESVYCENKCGARMRRLLAQHATSECPKRTQPCTYCXLXXSSSLTPSRATSTSAQGCLLPAPT
NVVWALWLGRTCQAI

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FIGURE 4771

GAGACTCGCCCGGCTCAACCCCGACGTCCGCGCCCCGGCCGCCTGTTGGCCATGGCGGGCCTGGGCCTGGGCTCC
GCCGTTCCCGTGTGGCTGGCCGAGGACGACCTCGGCTGCATCATCTGCCAGGGGCTGCTGGACTGGCCCGCCACG
CTGCCCTGCGGCCACAGCTTCTGCCGCCACTGCCTGGAGGCCCTGTGGGGCGCCCCGCGACGCCCCGCCGCTGGGGC
TGCCCCACTTGCCGCCAGGGCGCCGCGCAGCAGCCGCACCTGCCGAAGAACACGCTACTGCAGGACCTGGCCGAC
AAGTACCGCCGCGCCGCACGCGAGATACAGGCGGGCTCCGACCCTGCCCACTGCCCTGCCCGGGCTCCAGTTCC
CTCTCCAGCGCGGCCGCGAGGCCCGCGCGCCCGGAAGTGCAGCGGTGGCAGTAGAGAAGAGCATCACAGAA
GTTGCTCAGGAGCTGACAGAGCTGGTGGAACATCTTGTAGACATTGTGAGAAGCCTGCAGAATCAGAGGCCCTA
TCAGAATCTGGACCAGACAACGAAGTGCAGCATCCTGGGCAAGGAGAAGTCTTGAAGCCCCGTCTTCTCCTCAT
GCCCATTTGCTGACCAGAGCCACCCTGCACTCAGGAGAGCTTCTCGGTTTGCTCAGTGGGCCATCCATCCAACCT
TTAACTTGAAGAGCCTTTCTGTCAGCCTGGAGGTGTCCAAGGATTCCCGTACAGTGACTGTGTCTCACCGCCAC
AACCTATCGCTGGAGCTGTGAGAGGTTTTCTACCAGCCAGGTCTTATGTTCCAGGCCCTGTCTTCTGGAAGC
ATTACTGGGAAGTGGACACTAGGAATTGCAGCCACTGGGCAGTTGGGGTGGCTTCCTGGGAGATGAGCCGCGACC
AGGTCCTGGGAAGGACTATGGACTCTTGTGTGTGGAATGGAAGGGGACTAGCCAGCTCTCTGCATGGCACATGG
TCAAGGAAACTGTCTTGGCTCAGACAGACCTGGGGTGGTGGGCATCTGGCTGAACCTTGAGGAGGGAAAGCTTG
CCTTCTATTAGTGGACAATCAGGAGAAGCTTCTGTATGAGTGTACCATCTCTGCCTCCTCTCCTTTGTACCCTG
CCTTCTGGCTGTATGGCTTACATCCTGGAAATTACCTGATAATAAAGCAAGTAAAGGTGTAAGGTTTCCTAAGGG
ATTACAACACAGTGGTTTTCTGGTCTCTCTCCCTGTCATCAATCAGGGTAGTAACTTGACTTAAGAATACCACTT
TTTAGAAAAATTACGATAGAGATGGGATCTCACTAGGTTGCCAGGCTGGTGTGCAATTCTGGTCTCAAGCAGT
CCTCCACCTCAGCCTCCCAAGGTGCTGGGATTACAGGTGTGAGCCACCACACCTGGCCAAGAATACCACTTTG
AAGTTAATCCTTTTGTGTGATACAGGATGAACCTTGGGATGTTTGAACCCTGGACATTCCAAATAAAGAATAGGCC
CCTGCCTGGCTCCTGGGAGATAACCTCTAAGCCATTAGAATATCTTGCTGATAAGAGTGTTTTTGTACCTGT
GGGCCTTGGGCCATGCAGTATCAGCTTGACCTTGCAAGGTCAAGCTGAGGAGACTAAGTTAGCCATGTGGGCAGT
GAAGCATGCCAATGTGATCAATCCCTAGTAAAAGCCCTGGACACCTAGGCATGGGTGAGCTACTCTGGTTGGTAA
TACTCTGTGCACACATCATTGTAGCCACACATCATTGCTGGGAGAATTAAGCATTATCCTGAAGACTCTGCCAGG
AGAGGATAAATTGGAAGTTCTCTTGGACCTTACCTTATGTGCCTTTCTTCATTGCTGATTTTAATCTGTATCCTTT
CACTGTAATAAACTGTAAGTATGAGTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4772

MAGLGLGSAVPVWLAEDDLGCIICQGLLDWPATLPCGHSFCRHCLEALWGARDARRWACPTCRQGAAQQPHLRKN
TLLQDLADKYRRAAREIQAGSDPAHCPCPGSSSLSSAAARPRRRPELQRVAVEKSITEVAQELTELVEHLVDIVR
SLQNQRPLSESGPDNELSILGKENSWKPRLPPhAHCLTRATLHSGELLGLLSGPSIQPLT

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FIGURE 4773A

AGGTGGA AAAA ACTTGTGAAATATTTGGATCCCAACGACCTGGGGAGAATCAACTTCAAGGACTTTTGCCGGGGGG
TGTTCCGCCATGAAAGGGTGCGAGGAGCTGCTGAAGGATGTGCTGTCTGGTGGAGAGCGCGGGGACGCTGCCGTGCC
CGCCAGAGATCCCAGACTGCGTGGAGCAGGGCAGCGAGGTACAGGCCCCACCTTTGCTGATGGCGAGCTCATCC
CCAGGGAAACCCGGCTTTTTTCCCCGAGGACGAGGAGGAGGCTATGACGCTGGCGCCACCTGAGGGCCCCCAGGAGT
TGTACACAGACAGCCCCATGGAGAGCACTCAGAGCCTGGAGGGGTCTGTCTGGGAGTCTGCGGAGAAGGACGGGG
GACTTGGGGGCTGTTTTCTGCCAGAAGACAAGTCCCTGGTCCACACTCCATCCATGACGACCTCAGACCTTTCTA
CACACTCCACCACCTCGCTCATCAGCAATGAGGAGCAGTTTGAAGACTATGGGGAGGGTGACGATGTGGACTGTG
CCCCCAGCAGCCCTTGCCCCGATGATGAGACCAGGACCAACGCTCTACTCGGACCTGGGGTCTTCGGTGTCTTCCA
GTGCGGGGCAGACGCCTAGGAAAATGCGGCACGTGTACAACAGCGAATTGCTAGATGTTTACTGCTCTCAATGCT
GCAAGAAAATCAACCTGCTCAATGACTTGGAAAGCCCGACTGAAAACCTGAAGGCCAACAGCCCCAACCGAAAGA
TCTCCAGCACGGCCTTTGGACGGCAGCTCATGCACAGCAGCAACTTCAGCAGCAGCAATGGCAGCACCGAAGACC
TGTTCCGGGACAGCATTGACTCTTGCGACAATGACATCACAGAGAAGGTAAGCTTCCTGGAAAAGAAGGTGACAG
AGCTGGAGAATGACAGCCTGACCAATGGGGACCTGAAGAGCAAGCTGAAGCAAGAGAACACACAGCTGGTGCACA
GGGTGCATGAGCTGGAGGAGATGGTGAAGGATCAGGAGACCACGGCCGAGCAGGCTCTGGAGGAGGAGGCGCGGC
GCCACCGCAGGCCTACGGCAAGCTGGAGAGGGAGAAGGCTACCGAGGTGGAGCTGCTCAATGCCAGGGTGCAGC
AGTTGGAGGAAGAAAATACAGAGCTTAGAACAACAGTGACTCGGCTCAAGTCTCAAACAGAGAACTGGATGAGG
AGCGGCAGCGCATGTCTGACCGTCTGGAGGACACCAGCCTGCGGCTCAAAGATGAGATGGACCTGTACAAGCGCA
TGATGGACAAGCTGCGACAGAACCGCCTTGAGTTCCAGAAGGAGCGGGAGGCGACGCAGGAGCTCATCGAGGACT
TGCGGAAGGAGCTGGAGCACCTGCAGATGTACAAGCTGGACTGCGAGCGGCCAGGCAGGGGGCCGAGTGCCCTCT
CTGGCCTAGGCGAGTTCAATGCCAGGGCCCGGAGGTGGAGCTCGAGCACGAGGTCAAGCGGCTCAAGCAGGAGA
ATTATAAGCTGCGGGATCAGAACGACGACTTGAATGGGCAGATTTTGAGCCTCAGCCTCTACGAAGCAAAAAACC
TCTTTGCTGCCCAGACTAAAGCCAGTCTCTGGCTGCGGAGATAGACACCGCCTCGCGCGATGAGCTAATGGAAG
CCCTGAAGGAGCAGGAGGAGATCAACTTCCGGCTGAGGCAGTACATGGACAAGATTATCCTCGCCATCCTGGACC
ACAATCCCTCCATCCTCGAGATCAAACACTAAGGCACGGGGCTGGCTGCAGAGCAGCCTTAGGACCCTGGGACCA
AGGGCAGACCCTGCCCAAGGATGCAGGCCTAAGCCGGGCCTCACACTCACACTGTAAATGTCTCTTGCCACCA
TGCGTTACGTGTACCCGTGTATATGTGGGGAGGCTGTGCACACGAGCGAGGGGTGAGTGGCCGTGGCTGTGGGCA
GCATCCACACGGTTAGCCGTGCATGCACTTTGTGGCCCTTTGCAAGGGGCAGAGGGTACTGGAAGTGGGAGGAG
GCAAGGTCTGCTATCAGGAGTTACTGTAAAAACAAGAACTGGAAGCTCGTGTTCGGTACTGGGTAAATGATT
CTACCTCTGGGGATAAGGATTACATTCTGCTCTAGTACGATGGGCTCTTTCACCCCACTCCTAGTCCCCTTGGA
GTGGGAGCAAAATGTGATCTTTCTTAGGAGTTTGAATGCCCCATATTTGTGTCTCGCCAGCTCTTGGCCACC
TTTCAAGCCCCAGTGTTCAGCTCAGAGAGGATGAAGGGGCATCTGGAGGGTCCATGAGATGGGGCCCTCACCAA
ATGCTTTGGCCACCGGCCAGCAGCCCTCTGTGATGTGTGTGCAGAGTGAACAGAGGACTCAGGTTTCATAGCAGC
TAGTGCGGGGCATCCTCATCTGTACCTATAGAGTTCTGTGCACTCCCCATCCATGCTACCTACCTCCCGTTTC
TGTTTCAGTTTTAAGACAATGAAGCAGCATTACTGCGTCAATTGTAACATGAAGGGATAAAAATGAAGGAGAAGG
AGGGTTTTGGGATGGGTGTCTAAGGCAGGAGTTGACATCGGGCAACCAAAGAAATGAGTTTTGGGGAGGAACACAA
CTCCCATCCCAGTCAGTTTTCTTCCATGGCTGCATCTTAAGATGGATGCACGGAGAAACCGTCTGCCTGGCTCC
CTGTCTTCATTCTCCACGCAGCCTGGTGATGGCAGGCCTGGGTTTGGATTTCAGAAATCCTAGCTCCGGGCTCCAC
TCGTGTGGCAGCAAGACTGCTTTCGTTCCAGCGTTTAGAAACACACCTGTATTGATTCTCAGCCAGGGGAGCACT
CGCTGCACTGGTGGGAGGCGGTTGGGAAAGTTGCAGGAAAACCTTAGTCTTCCATCCTTCTGACCCATGGTGGAA
ATTACACCATGGATTTTTAATGGATCTTTGTTCTAGGCAGCTGGGAAATAGACATGGTACTTACCTTAGAGTTTT
CCAATTTATCTCAATTTTATATGGCTTGTGATTCAATTTCTTAATCCAAATATATATAAAGCTGTGTGGTCTTAT
TCTTCCCCCTGCAGTTTCTTGCTTTCTTCAGCACATCTTATAGTATGAGAAGGAAGGTTTGGGCATGTTGGGAAG
GGCGGTGGAGGGGGAGTTGCAGAAAGAGAGGGCAGTGAGGGTGAGGAGAGGGGATCTGGGGACTTGGGTGTGACA
CCTGCTTGACAGAGGCAGGGCTGTGGCCAGGACCAACCTTCAATTCCATTCCAATCAGCCTTTGCATTTGTTGGA
TCTCGTGGCTTCTTTTTAATCTTTTGTGGGGATTAGTTTCATGCTGCACATAATGGGGTTGCACTGGTCTGACC
CAGGACTTTGGAGCCACCCACACTGGGAAGACTAGGCTAGGCAGTCGGTCTTCTAGGAGTTTCTCAGCCCCCTTAG
GACGCGGGTCTCCTTGGGCTCCCCAAGGGTCTGCGAAGAGGCAGTGGAAGAAGGCATGAGGAGAGGGTCTCTT
GAGAATTTGCCAATAGGAAGGAGTGGCCACGGCTGAAAGGAACAAGACAGATCCTGACATAGCTTTGGCCTGGGT

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FIGURE 4773B

GTTAGGTCAGAAGGAGTACTGGTGCGTGGGGGCCCTTACCCACAGGGTTGAGTATTTTATCTGTAAAATGTTATCTG
CCCTTTGGCTGCATTGGAATTTTCAGAGAAGGCTGCAGAGGCCTGGGTTACACAGCCTGAGTCACAACGTGGGAAG
GAATCTCTGCCACGGGAAAGGTGGGCGGAAGCAGCTGGCAGCCTGGGGCGTGCTTCAGGCTCCTCCCTCTAAGGG
GCGCCATGGGAACAGGCTCCGGAGGGAGCCGGCGTCTGAAAGGCCCCCGGGACCTGCTGCAGTGCCAGAGGGGCC
TCTGGAGCAGGCCTGGCTTTTAAATGGGGGGCTGAATTCAGCTCACACACACCTCAAGTCCAACCTTACTTTCT
TCAGCCAGAATACATTTCTTGTAAAACCTGGCTTGTGCTTGGCTTTTAAAGATGGTGTATGTTTGTAAAAATAT
TCTTCTGGGCTCAAAAGCTAGCTTGAGGGGGCAGATGCCCCAGGTGTCCAGCTCCACAGCCCCTGGCAGATCCC
AGACCCCTTGGTGGCAGGTCCCAGAGCCTAGGTGGTAGGAGCTTGATCTTTGTTTCTGCCCTTACCCCTCAGTAG
TGGGGCTGCGAGGTAGTAGACAGGATGCCAGTTAAGTTTGAATTTTCAGATAGAAAATAATTTTAGAATAAATAT
GTTCTATCTAATACATGGGACAGATGTTATTTTTAGAGATAGGATCTTGCTCTGTTGCCAGGCTGGAGTGTAGT
GGTATGATCATAGCTCACCACAACCTTGAACCTCCAGGCTCAAGCGATCCTCCCGCCTTAACCTGCCCTGAGTAGCT
GGGACTACAGGCATGCACCACCACGCCCAGCTAATTTTTCTTATTTTTTGTAGAGACAGGGTCTCACTGTGTTGC
CTCACTCGAGCTGCTGACCTCAAGTGATCCTCCACCTCAGCCTGCCAAAGCACTGGGATTACAGGCATGAGCCA
CCATGCCCTGGCCAGGACATATTTGAAATGGGGAGATTTTAAAAAATTCTGATGATTAGACTGAATCCTCAGACGTT
CTGGTTTGATTGTTGTGGGTGTAGCCCAGGCATGGGATTTTTTAAAGAGCTGCTCAGGTAATTCGAATTTAATTG
CGTGTCTACTTGGGTTTTTTGTTTGTTTTTATTGTTTTTGCTAAACCTGGCAACCCTACCGAGTAGGGATTAGC
AGTAACTTATCTGAAATTTAGAGGTGTTTTGGGGGTGGGGCGAGGGTTTCTGTAGTAGACTCAGATTTTACATGG
CCCTGAGCTGCCCTTGCCTTCAGTTGGAAGCCACGCAAAATGAACCTGAACAGGAGTGAGCTTCGTGTACATTAT
CTATTAGAAAAATGAAGTACCTTCTGGTTCAGCTAGTCCCTGTGCGTTGAGAGGCTTTAAGAACTTCTAGTAAAA
ATGTTTTTTTCTTTTAGCTTTGAATTGGCCAGAGTTTATCCTAGATTATTTTATTTTAAATTGGTAGAATTCCTT
GCGAACTGTCACAGAGAAATTCCTTTTCATGACTTTATTTCTGACCTATTAAACATGAACAGGCCAGGCATGGT
GGCTCACGCCTGTAATCCTAGCACTTGGGAGGCAGTGGCAGGCGGATCACTTGAGCTCAGGAGTCCTAAACCAGC
CTGGGCAACATAGTGATACCTTGTCTCTACCAAAAGTT

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FIGURE 4774

MKGCEEELLKDVLSVESAGTLPCAPEIPDCVEQGSEVTGPTFADGELIPREPGFFPEDEEEAMTLAPPEGPQELYT
DSPMESTQSLEGSVGSPA EKDGGLGGLFLPEDKSLVHTPSMTTSDLSTHSTTSLISNEEQFEDYGE GDDVDCAPS
SPCPDDETRTNVYSDLGSSVSSSAGQTPRKMRHVYNSEL LDVYCSQCCKKINLLNDLEARLKNLKANS PNRKISS
TAFGRQLMHSSNFSSSNGSTEDLFRDSIDSCDNDITEKVSFLEKKVTELEND SLTNGDLKSKLKQENTQLVHRVH
ELEEMVKDQETTAEQALEEEEARRHREAYGKLEREKATEVELLNARVQQLEEEENTELRTTVTRLKSQTEKLDEERQ
RMSDRLEDTSRLKDEMDLYKRMDKLRQNRLEFQKEREATQELIEDLRKELEHLQMYKLCERPGRGRSASSGL
GEFNARAREVELEHEVKRLKQENYKLRDQND DLNGQILSLSLYEAKNLFAAQTKAQS LAEIDTASRDELMEALK
EQEINFRLRQYMDKIILAILDHNPSILEIKH

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FIGURE 4775

GGCTGATTGGCGCTTCTGCGGCGGATCCTCGGGCGGGCAGCCGGGCGGCGCGTACAGTGGCCACGGCGTCCAG
GGCGACCAGCCGCGGGCCGCAGGGCATGGACCTTCAGGCCGCCGGGGCCCAGGCGCAGGGGGCCGCGGAGCCGTC
TCGGGGCCCGCCGCTGCCTAGCGCGCGGGGGGCGCCCCCAGCCCGGAGGCTGGCTTTGCTACAGCTGACCACTC
CAGTCAGGAGAGAGAGACTGAGAAGGCTATGGATCGACTAGCCCGTGGAACACAGAGCATTCCTAATGACAGTCC
TGCCCGGGGTGAGGGCACCCATTCTGAAGAGGAAGGCTTTGCCATGGATGAGGAGGACTCTGATGGAGAACTGAA
TACCTGGGAGCTGTCAGAAGGGACAACTGTCCACCCAAGGAACAGCCTGGCGATCTTTTTAATGAGGACTGGGA
CTCGGAGTTGAAAGCAGATCAAGGGAATCCATATGATGCTGACGACATCCAGGAGAGCATTCTCAAGAGCTTAA
ACCTTGGGTGTGCTGTGCCCCACAAGGAGACATGATCTATGACCCAGCTGGCACCATCCGCTCCACTGATACC
CTATTATTCCAAGATGGTCTTTGAAACAGGACAGTTTGACGATGCTGAAGATTTGAGTGTGGAGCTTTCTGCCTTG
TAGGTGGGCGGGCCTCCACGTCAAGATCTCTTTTCTGTCTTGGAGGTGAAAAGTCATATCTGAGAAAATGTTG
CAGTGACCCCTAGTCTGGGGTACACAGACCAGTGTTTCTTATTGACAGTGTTCAATAAGGCCCCGTCATTCTCGC
CAGTCTGTTGTTGTTCTTAATGGGCTCCTCCTTGAAATGTGTGTGTGTTGTGTCAAGAGGAGTTGTGTTCTTG
TAAATAAAGGTTAAAAAGAG

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FIGURE 4776

MDLQAAGAQAQGAAEPSRGPPLP SARGAPPSPEAGFATADHSSQERETEKAMDRLARGTQSIPNDSPARGEGTHS
EEEGFAMDEEDSDGELNTWELSEGTNCPKQPGDLFNEDWDSELKADQGNPYDADDIQESISQELKPWVCCAPQ
GDMIYDPSWHHPPLIPYYSKMVFETGQFDDAED

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FIGURE 4777

GAGGCGGAGCGGGGAACGAGGCCGTCGGCCATTTTGTGTCTGCTTCCTGTGGGACGTGGTGGTAGCCGTTGGGT
GGGAAAGTGAGGGATTTTTGGCCTCGTTTCCTGCTTCTTTCTCCTCCCTTTTACTTTGCCGGTAGAACACAG
TTATGGGTCGCAAGAAGAAGAAGCAGCTGAAGCCGTGGTGCTGGTATTGTAATAGAGATTTTGATGATGAGAAGA
TCCTTATTCAGCACCAAAAAAGCAAGCATTTTAAATGCCATATATGTCACAAGAAATTGTATACAGGACCTGGCT
TAGCTATTCAATGCATGCAGGTACATAAAGAAACAATAGATGCCGTACCAATGCAATACCTGGAAGAACAGACA
TAGAGTTGGAATATATGGTATGGAAGGTATTCCAGAAAAAGACATGGATGAAAGACGACGACTTCTTGAACAGA
AAACACAAGAAAGTCAAAAAAGAAGCAACAAGATGATTCTGATGAATATGATGATGACGACTCTGCAGCCTCAA
CTTCATTTTCAGCCACAGCCTGTTCAACCTCAGCAAGGTTATATTCTCCAATGGCAGACGCCAGGACTGCCACCAG
TACCAGGAGCACCAGGAATGCCCTCCAGGCATACCTCCATTAATGCCAGGTGTTCTCTCTGATGCCAGGAATGC
CACCAGTTATGCCAGGCATGCCACCTGGATTGCATCATCAGAGAAAATACACCCAGTCATTTTGCGGTGAAAACA
TAATGATGCCAATGGGTGGAATGATGCCACCTGGACCAGGAATACCACCTCTGATGCCTGGAATGCCACCAGGTA
TGCCCCCACCTGTTCCACGTCCTGGAATTCCTCCAATGACTCAAGCACAGGCTGTTTCAGCGCCAGGTATTCTTA
ATAGACCACCTGCACCAACAGCAACTGTACCTGCCCCACAGCCTCCAGTTACTAAGCCTCTTTTCCCCAGTGCTG
GACAGATGGGGACACCTGTCACAAGCTCAAGTACAGCTTCATCCAATTCAGAAAGTCTGTCTGCATCTTCTAAAG
CTCTGTTTCCTAGCACAGCACAAGCTCAGGCAGCTGTCCAAGGACCTGTTGGTACAGATTTCAAACCCTTAAATA
GTACCCCTGCAACAACTACAGAACCCCCAAAGCCTACATTCCCTGCTTATACACAGTCTACAGCTTCAACAATA
GTACAACAAATAGTACTGCAGCTAAACCAGCGGCTTCAATAACAAGTAAGCCTGCTACACTTACAACAAGTAGTG
CAACCAGTAAGTTGATCCATCCAGATGAGGATATATCCCTGGAAGAGAGAAGGGCACAGTTACCTAAGTATCAAC
GTAATCTTCCTCGGCCAGGACAGGCCCCCATCGGTAATCCACCAGTTGGACCAATTGGAGGTATGATGCCACCAC
AGCCAGGCATCCCACAGCAACAAGGAATGAGACCCCAATGCCACCTCATGGTCAGTATGGTGGTCATCATCAAG
GCATGCCAGGATACCTTCCTGGTGCTATGCCCCCGTATGGGCAGGGACCGCCAATGGTGCCCCCTTACCAGGGTG
GGCCTCCTCGACCTCCGATGGGAATGAGACCTCCTGTAATGTCGCAAGGTGGCCGTTACTGATCTTACTTCATCC
AGTCTAATAGGTTTGGAGATTAAACCTTTTCTCAACTTGTGCTGTTTATATAGCCAAGCTTCCGTCATAAAGGCT
TCATTGTGACTTTAACAACATTATCTTCCCACATACCAGGAACATTGGACATTTATTTTACATGGGAAAAATT
ATTTGGAATAATAAAGCAGGAACCTTTTCTGAAGTTGCAATTTATACTGTATGGCTTCTTTTCATGTTTCATCT
AGGTTTTTTAGAAGTGAAGTATAGTAAATTTGGTTCGTTAAATTGTGAAGGCGCTGGAATTACATGAACATAACCAC
CCTAGTAAAGGCAAGTTCTGTAAGCTTACATTGCTATTTGTAAAGTTTGCCTTCACAGCATTTTACAGATGCTGTTG
GACTTCATGTCCCCAACCTAGCTTGGTGAGGGCTGTAAGTGTTCCTCAAGTACTTGTACATTGGAAGTCTGAATGT
GTAACAATATTTAATGTATTTAGAGTTCCTCATGTTGCAGGGTTTAAAGAAATCTGACCCACCAAGGTCATGTGAC
TTTTCTGTACTGTTAACTTCATTGTAATAAAATGAGAGAAAAATTTATGCCTTTTTTATTCATAACCCAGCTGTG
GACCACTGCCTGAAAGGTTTGTACAGATGCATGCCACAGTAGATGTCCACATAATAAAATTCATAGTTACCAATG
CA

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FIGURE 4778

ATGGCGGCGGCGGCGGTGGTGGAGTTCCAGAGAGCCCCAGTCTCTACTCAGCACCGACCGGGAGGCCTCCATCGAC
ATCCTCCACTCCATCGTGAAGCGTGACATTGAGGAAAACGATGAAGAGGCAGTGCAAGTCAAAGAGCAGAGCATC
CTGGAACTGGGATCTCTCCTGGCAAAGACTGGACAAGCTGCAGAGCTTGGAGGACTCCTGAAGTATGTACGACCC
TTCTTGAATTCCATCAGCAAGGCTAAAGCAGCTCGCCTGGTCCGATCTCTTCTTGATCTGTTTCTTGATATGGAA
GCAGCTACAGGGCAGGAGGTCGAGCTGTGTTTAGAGTCCATCGAATGGGCCAAGTCAGAGAAAAGAACTTTCTTA
CGCCAAGCTTTGGAGGCAAGACTGGTGTCTTTGTACTTTGATACCAAGAGGTACCAGGAAGCATTGCATTTGGGT
TCTCAGCTGCTGCGGGAGTTGAAAAAGATGGACGACAAAGCTCTTTTGGTGGAAGTACAGCTTTTAGAAAGCAAA
ACATACCATGCCCTGAGCAACCTGCCGAAAGCCCGAGCTGCCTTAACTTCTGCTCGAACCACAGCAAATGCCATC
TACTGCCCCCTAAATTGCAGGCCACCTTGGACATGCAGTCGGGTATTATCCATGCAGCAGAAGAGAAGGACTGG
AAAACTGCGTACTCATACTTCTATGAGGCATTTGAGGGTTATGACTCCATCGACAGCCCCAAGGCCATCACATCT
CTGAAGTACATGTTGCTGTGCAAAATCATGCTCAACACCCCAGAAGATGTCCAGGCTTTGGTGAGCGGGAAGCTT
GCACTTCGGTATGCAGGGAGGCAGACAGAAGCATTAAATGCGTGGCTCAGGCTAGCAAGAACAGATCACTGGCA
GATTTTGAAGGCTCTGACAGATTACCGGGCAGAGCTCCGGGATGACCAATCATCAGCACACACTTGGCCAAG
TTGTATGATAACTTACTAGAACAGAATCTGATCCGAGTCATTGAGCCTTTTCCAGAGTACAGATTGAACACATA
TCTAGTCTCATCAAACCTCTCCAAGGCCGACGTGGAAAGGAAATTATCACAGATGATTCTTGACAAGAAATTTTCAT
GGGATTTTGGACCAGGGGGAGGGTGTCTGATTATTTTCGATGAACCCCCAGTAGATAAACTTACGAAGCTGCT
CTGGAAACAATTCAGAACATGAGCAAAGTAGTGGATTCCCTCTACAACAAAGCCAAGAACTGACATAG

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FIGURE 4779

MAAAAVVEFQRAQSLLSTDREASIDILHSIVKRDIQENDEEAVQVKEQSILELGSLLAKTGQAAELGGLLKVVRP
FLNSISKAKAARLVRSLLDLFLDMEAATGQEVELCLESIEWAKSEKRTFLRQALEARLVSLYFDTKRYQEALHLG
SQLLRELKKMDDKALLVEVQLLESKTYHALSNLPKARAALTSARTTANAIYCPPKLQATLDMQSGIIHAAEEKDW
KTAYSIFYEAFEGYDSIDSPKAITSLKYMLLCKIMLNTPEDVQALVSGKLALRYAGRQTEALKCVAQASKNRS
LA
DFEKALTDYRAELRDDPIISTHLAKLYDNLLEQNLIRVIEPFSRVQIEHISSLIKLSKADVERKLSQMILDKKFH
GILDQGEGLIIFDEPPVDKTYEAALETIQNMSKVVDSLYNKAKKLT

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FIGURE 4780

GGCAGGCCCCGCGCCCGCGCCCGGACTTTGCCATCGGCGGGGCAGTCGCGGGATGCGCCCGGGAGCCACAGCCTGA
GGCCCTCAGGTCTCTGCAGGTGTCGTGGAGGAACCTAGCACCTGCCATCCTCTTCCCCAATTTGCCACTTCCAGC
AGCTTTAGCCCATGAGGAGGATGTGACCGGGACTGAGTCAGGAGCCCTCTGGAAGCATGGAGACTGTGGTGATTG
TTGCCATAGGTGTCTTGCCACCATCTTTCTGGCTTCGTTTGCAGCCTTGGTGCTGGTTTTGCAGGCAGCGCTACT
GCCGGCCGCGAGACCTGCTGCAGCGCTATGATTCTAAGCCCATTTGTGGACCTCATTGGTGCCATGGAGACCCAGT
CTGAGCCCTCTGAGTTAGAACTGGACGATGTGCTTATCACCAACCCCCACATTGAGGCCATTCTGGAGAATGAAG
ACTGGATCGAAGATGCCTCGGGTCTCATGTCCCACTGCATTGCCATCTTGAAGATTTGTACACTCCGACAGAGA
AGCTTGTTGCCATGACAATGGGCTCTGGGGCCAAGATGAAGACTTCAGCCAGTGTGACGACATCATTGTGGTGG
CCAAGCGGATCAGCCCCAGGGTGGATGATGTTGTGAAGTCGATGTACCCTCCGTTGGACCCCCAACTCCTGGACG
CACGGACGACTGCCCTGCTCCTGTCTGTGTCAGTCACCTGGTGCTGGTGACAAGGAATGCCTGCCATCTGACGGGAG
GCCTGGACTGGATTGACCAGTCTCTGTGCGGCTGCTGAGGAGCGTTTGGAAATCCTTCGAGAAGCAGCCCTAGCTT
CTGAGCCAGATAAAGGCCCTCCCAGGCCCTGAAGGCTTCCTGCAGGAGCAGTCTGCAATTTTAGTGCCTACAGGCCA
GCAGCTAGCCATGAAGGCCCTGCCGCCATCCCTGGATGGCTCAGCTTAGCCTTCTACTTTTTCTATAGAGTTA
GTTGTTCTCCACGGCTGGAGAGTTCAGCTGTGTGTCATAGTAAAGCAGGAGATCCCCGTCAGTTTATGCCTCTT
TTGCAGTTGCAAACGTGGGCTGGTGAGTGGCAGTCTAATACTACAGTTAGGGGAGATGCCATTCACTCTCTGCAA
GAGGAGTATTGAAAACGTGGTGGACTGTCAGCTTTATTTAGCTCACCTAGTGTTTTCAAGAAAATTGAGCCACCGT
CTAAGAAATCAAGAGGTTTCACATTAAAATTAGAATTTCTGGCCTCTCTCGATCGGTCAGAATGTGTGGCAATTC
TGATCTGCATTTTCAGAAGAGGACAATCAATTGAACTAAGTAGGGGTTTCTTCTTTTGGCAAGACTTGTACTCT
CTCACCTGGCCTGTTTCATTTATTTGTATTATCTGCCTGGTCCCTGAGGCGTCTGGGTCTCTCCTCTCCCTTGCA
GGTTTGGGTTTGAAGCTGAGGAACTACAAAGTTGATGATTCTTTTTATCTTTATGCCTGCAATTTTACCTAGC
TACCCTAGGTGGATAGTAAATTTATACTTATGTTCCCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4781

METVVIVAIGVLATIFLASFAALVLVCRQRYCRPRDLLQRYDSKPIVDLIGAMETQSEPSELEDDVVITNPHE
AILENEDWIEDASGLMSHCIAILKICHTPTEKLVAMTMGSGAKMKTSASVSDIIVVAKRISPRVDDVVKSMYPPL
DPKLLDARTTALLLSVSHLVLVTRNACHLTGGLDWIDQSLSAEERLEVLREAALASEPDKGLPGPEGFLQEQSA
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FIGURE 4782

ATGCTGAAGCTCACACCCTTGCCCTCCAAGATGAAGGTTTCTGCAGCGCTTCTGTGCCTGCTGCTCATGGCAGCC
ACTTTCAGCCCTCAGGGACTTGCTCAGCCAGATTTCAGTTTCCATTCCAATCACCTGCTGCTTTAACGTGATCAAT
AGGAAAATTCCTATCCAGAGGCTGGAGAGCTACACAAGAATCACCAACATCCAATGTCCCAAGGAAGCTGTGATC
TTCAAGACCCAACGGGGCAAGGAGGTCTGTGCTGACCCCAAGGAGAGATGGGTCAGGGATTCCATGAAGCATCTG
GACCAAATATTTCAAAATCTGAAGCCATGA

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FIGURE 4783

MLKLTPLP SKMKVSAALLCLLLMAATFSPQGLAQPDSVSIPITCCFNVINRKIP IQRLESYTRITNIQCPKEAVI
FKTQRGKEVCADPKERWVRDSMKHLDQIFQNLKP

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FIGURE 4784

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTTGGTGCCGCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCTGCGGGGAACATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGGCCCTGGTTGCCCTGAGGCGGGTGCTGCTGGCTCAGTTCTCGGCTTTCCC
CGTGAATGGCGCTGATCTCCACGAGGAACTGAAGACCTCTACTGCCATCCTGTCCACTGGCATTGGCAGTCTTGA
TAAACTGCTTGATGCTGGTCTCTATACTGGAGAAGTGACTGAAATTGTAGGAGGCCAGGTAGCGGGAAAACCTCA
GGTATGTCCTGTATGGCAGCAAATGTGGCCCCATGGCCTGCAGCAAAACGTCTATATGTAGATTCCAATGGAGG
GCTGACAGCTTCCCCGCTCCTCCAGCTGCTTCAGGCTAAAACCCAGGATGAGGAGGAACAGGCAGAAGCTCTCCG
GAGGATCCAGGTGGTGATGCATTTGACATCTTCCAGATGCTGGATGTGCTGCAGGAGCTCCGAGGCAGTGTGGC
CCAGCAGGTGACTGGTTCTTCAGGAACTGTGAAGGTGGTGGTTGTGGACTCGGTCACTGCGGTGGTTTTCCCCACT
TCTGGGAGGTCAGCAGAGGGAAGGCTTGGCCTTGATGATGCAGCTGGCCCCGAGAGCTGAAGACCCTGGCCCCGGGA
CCTTGGCATGGCAGTGGTGGTGACCAACCACATAACTCGAGACAGGGACAGCGGGAGGCTCAAACCTGCCCTCGG
ACGCTCCTGGAGCTTTGTGCCAGCACTCGGATTCTCCTGGACACCATCGAGGGAGCAGGAGCATCAGGCGGCCG
GCGCATGGCGTGTCTGGCCAAATCTTCCCGACAGCCAACAGGTTTCCAGGAGATGGTAGACATTGGGACCTGGGG
GACCTCAGAGCAGAGTGCCACATTACAGGGTGATCAGACATGACCTGTGCTGTTGTTTGGGAAACAGGGAAGCAT
TGGGGACCCCTCCCAACTTTTCTTCCAGTAACGCCTGCTGTTTACTGCCACCTGGCACTGGTGACTACAGACGT
TCTCAGGCTGGCCAGAAGAGACATCTTGGGTTCTTGGCCTCACTCTCTGTAAGCATATAAACCACAGGCGAAAG
AGGATGCTGCATTGCGAGGACCCAGAAATTCATACTGGTGCCACGTTTCCCTTCCCTTATTTCTAACGTGTATGTT
TCTGGTGGAAACCAAGTTCACCCTGGCTGGGAGCATCTCTGATGAGGCATGCTGGCGACTGGATGGATAATCCTG
TGCATCACCATTGTGTCCTGTGCTCCCTCCTAGCGCAGTGGCCAAGCCGGGAAAGCCTCTAACTTGCCTTTGCTG
CTGCTGCCTTTTTTTTCTTTGTCTCTGCCTTTCCATTTGTTAGATGGGGGCCACTCTTCTTAGCTCTGTCTC
TGAGTTACTGGGTGGAAATAAGCTTATAAATGAAATACTCTTCTTCATCTCTGTTTTGCTCTTAAAAATATAAAA
AGGCAATTCCCCGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4785

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKALVALRRVLLAQFSAFPVNGADLHEEL
KTSTAILSTGIGSLDKLLDAGLYTGEVTEIVGGPGSGKTQVCLCMAANVAHGLQQNVLYVDSNGGLTASRLLQLL
QAKTQDEEEQAEALRRIQVVHAFDIFQMLDVLQELRGTVAAQVTGSSGTVKVVVVDSVTAVVSPLLGGQQREGLA
LMMQLARELKTLDLGMVAVVTNHITRDRDSGRLKPALGRSWSFVPSTRILLDTIEGAGASGGRRMACLAKSSR
QPTGFQEMVDIGTWGTSEQSATLQGDQT

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FIGURE 4786

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTTGGTGCCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCTGCGGGGAACATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGTCTTGATAAACTGCTTGATGCTGGTCTCTATACTGGAGAAGTGACTGAAA
TTGTAGGAGGCCCCAGGTAGCGGCAAACTCAGGTATGTCTCTGTATGGCAGCAAATGTGGCCCATGGCCTGCAGC
AAAACGTCTATATGTAGATTCCAATGGAGGGCTGACAGCTTCCCGCCTCCTCCAGCTGCTTCAGGCTAAAACCC
AGGATGAGGAGGAACAGGCAGAAGCTCTCCGGAGGATCCAGGTGGTGCATGCATTTGACATCTTCAGATGCTGG
ATGTGCTGCAGGAGCTCCGAGGCACCTGTGGCCCGAGCAGGTGACTGGTTCTTCAGGAACCTGTGAAGGTGGTGGTTG
TGGACTCGGTCACTGCGGTGGTTTCCCCACTTCTGGGAGGTGAGCAGAGGGAAGGCTTGGCCTTGATGATGCAGC
TGGCCCGAGAGCTGAAGACCCCTGGCCCGGGACCTTGGCATGGCAGTGGTGGTGACCAACCACATAACTCGAGACA
GGGACAGCGGGAGGCTCAAACCTGCCCTCGGACGCTCCTGGAGCTTTGTGCCAGCACTCGGATTCTCCTGGACA
CCATCGAGGGAGCAGGAGCATCAGGCGGCCGGCGCATGGCGTGTCTGGCCAAATCTTCCCGACAGCCAACAGGTT
TCCAGGAGATGGTAGACATTGGGACCTGGGGGACCTCAGAGCAGAGTGCCACATTACAGGGTGATCAGACATGAC
CTGTGCTGTGTGTTTGGGAAACAGGGAAGCATTGGGGACCCCTCCCAACTTTTCTTCCCAGTAACGCCTGCTGTTT
ACTGCCACCTGGCACTGGTGACTACAGACGTTCTCAGGCTGGCCAGAAGAGACATCTTGGGTTCTTGGCCTCAC
TCTCTGTAAGCATATAAACCACAGGCGAAAGAGGATGCTGCATTGCGAGGACCCAGAAATTCATACTGGTGCCAC
GTTTCCTTCCCTTATTTCTAACGTGTATGTTTCTGGTGGAAACCAAGTTCACCCTGGCTGGGAGCATCTCTGATG
AGGCATGCTGGCGACTGGATGGATAATCCTGTGCATCACCATTGTGTCTGTGCTCCCTCCTAGCGCAGTGGCCA
AGCCGGGAAAGCCTCTAACTTGCCCTTGTCTGCTGCTGCTTTTTTTTCTTTTGTCTCTGCCTTTCCATTTGTTAG
ATGGGGGGCCCACTCTTCCTTAGCTCTGTCTCTGAGTTACTGGGTGGAAATAAGCTTATAAATGAAATACTCTTCT
TCATCTCTGTTTGTCTCTAAAAATATAAAAAGGCAATTCCCCG

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FIGURE 4787

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKS

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FIGURE 4788

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTTGGTGCCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCGGGCTGCGGGGAACATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGTCTTGATAAACTGCTTGATGCTGGTCTCTATACTGGAGAAGTGACTGAAA
TTGTAGGAGGCCCCAGGTAGCGGCAAACTCAGGCAGAAGCTCTCCGGAGGATCCAGGTGGTGCATGCATTTGACA
TCTTCCAGATGCTGGATGTGCTGCAGGAGCTCCGAGGCAGTGTGGCCAGCAGGTGACTGGTTCTTCAGGAACTG
TGAAGGTGGTGGTTGTGGACTCGGTCACTGCGGTGGTTTCCCCACTTCTGGGAGGTGAGCAGAGGGAAGGCTTGG
CCTTGATGATGCAGCTGGCCCCGAGAGCTGAAGACCCTGGCCCGGGACCTTGGCATGGCAGTGGTGGTGACCAACC
ACATAACTCGAGACAGGGACAGCGGGAGGCTCAAACCTGCCCTCGGACGCTCCTGGAGCTTTGTGCCAGCACTC
GGATTCTCCTGGACACCATCGAGGGAGCAGGAGCATCAGGCGGCCGGCGCATGGCGTGTCTGGCCAAATCTTCCC
GACAGCCAACAGGTTTCCAGGAGATGGTAGACATTGGGACCTGGGGGACCTCAGAGCAGAGTGCCACATTACAGG
GTGATCAGACATGACCTGTGCTGTTGTTTGGGAAACAGGGAAGCATTGGGGACCCCTCCCAACTTTTCTTCCCAG
TAACGCCTGCTGTTTACTGCCACCTGGCACTGGTGACTACAGACGTTCTCAGGCTGGCCAGAAGAGACATCTTGG
GTTCTTGGCCTCACTCTCTGTAAGCATATAAAACACAGGCGAAAGAGGATGCTGCATTGCGAGGACCCAGAAAT
TCATACTGGTGCCACGTTTCCCTTCCCTTATTTCTAACGTGTATGTTTCTGGTGGAAACCAAGTTCACCCCTGGCTG
GGAGCATCTCTGATGAGGCATGCTGGCGACTGGATGGATAATCCTGTGCATCACCATTGTGTCCTGTGCTCCCTC
CTAGCGCAGTGGCCAAGCCGGGAAAGCCTCTAACTTGCCCTTTGCTGCTGCTGCCTTTTTTTTTCTTTTGTCTCTGC
CTTCCATTTGTTAGATGGGGGCCACTCTTCTTAGCTCTGTCTCTGAGTTACTGGGTGGAAATAAGCTTATAA
ATGAAATACTCTTCTCATCTCTGTTTTGCTCTTAAAAATATAAAAGGCAATTCCCCG

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FIGURE 4789

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKS

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FIGURE 4790

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTTGGTGCCGCCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACAGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCCTGCGGGGAACATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGGCAGAAGCTCTCCGGAGGATCCAGGTGGTGCATGCATTTGACATCTTCCA
GATGCTGGATGTGCTGCAGGAGCTCCGAGGCACTGTGGCCCAGCAGGTGACTGGTTCTTCAGGAACGTGTGAAGGT
GGTGGTTGTGGACTCGGTCACTGCGGTGGTTTCCCCACTTCTGGGAGGTCAGCAGAGGGAAGGCTTGGCCTTGAT
GATGCAGCTGGCCCAGAGCTGAAGACCCCTGGCCCCGGGACCTTGGCATGGCAGTGGTGGTGACCAACCACATAAC
TCGAGACAGGGACAGCGGGAGGCTCAAACCTGCCCTCGGACGCTCCTGGAGCTTTGTGCCAGCACTCGGATTCT
CCTGGACACCATCGAGGGAGCAGGAGCATCAGGCGGCCGCGCATGGCGTGTCTGGCCAAATCTTCCCGACAGCC
AACAGGTTTCCAGGAGATGGTAGACATTGGGACCTGGGGGACCTCAGAGCAGAGTGCCACATTACAGGGTGATCA
GACATGAACCTGTGCTGTTGTTTGGGAAACAGGGAAGCATTGGGGACCCCTCCCAACTTTTCTTCCCAGTAACGCC
TGCTGTTTACTGCCACCTGGCACTGGTGACTACAGACGTTTCTCAGGCTGGCCAGAAGAGACATCTTGGGTTTCCTT
GGCCTCACTCTCTGTAAGCATATAAACCACAGGCGAAAGAGGATGCTGCATTGCGAGGACCCAGAAATTCATACT
GGTGCCACGTTTCCCTTCCCTTATTTCTAACGTGTATGTTTCTGGTGGAAACCAAGTTACCCCTGGCTGGGAGCAT
CTCTGATGAGGCATGCTGGCGACTGGATGGATAATCCTGTGCATCACCATTGTGTCTGTGCTCCCTCCTAGCGC
AGTGGCCAAGCCGGGAAAGCCTCTAACTTGCCTTTGCTGCTGCTGCCTTTTTTTTCTTTTGTCTCTGCCTTTCCA
TTTGTTAGATGGGGGCCCACTCTTCCTTAGCTCTGTCTCTGAGTTACTGGGTGGAATAAGCTTATAAATGAAAT
ACTCTTCTTCACTCTGTTTTGCTCTTAAAAATATAAAAAGGCAATTCCCCG

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FIGURE 4791

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKAEALRRIQVVHAFDIFQMLDVLQELRG
TVAQQVTGSSGTVKVVVDSVTAVVSPILLGGQQREGLALMMQLARELKTLDLGMVAVVTNHITRDRDSGRLKP
ALGRSWSFVPSTRILLDTIEGAGASGGRRMACLAKSSRQPTGFQEMVDIGTWGTSEQSATLQGDQT

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FIGURE 4792

GTGGGGACGCAGGATGCGGGCAGCAGTGGCGGACGAGGCGGTGGCGCGCGATGTGCAGCGGTTGCTAGTGCAGTT
CCAGGATGAGGGCGGGCAGCTGCTGGGTTCCTCGACGTGCCCCGTGGACATCACCCCGGACAGGCTGCAGCT
CGTGTGCAACGCGCTACTGGCCCAGGAGGATCCCTGCCACTGGCTTTCTTTGTCCACGATGCTGAGATCGTCTC
CTCACTGGGGAAAGACGTTGGAGTCCCAGGCAGTGGAGACAGAGAAGGTCCTAGACATCATCTACCAGCCACAGGC
TATCTTCAGAGTCCGGGCTGTGACTCGCTGCACCAGCTCCTTGGAGGGTCACAGTGAGGCAGTCATTTCTGTGGC
CTTCAGCCCTACGGGAAAGTACCTGGCCAGTGGCTCTGGAGACACCACCGTGCGCTTCTGGGATCTCAGCACAGA
GACACCACATTTACATGCAAGGGACACAGACACTGGGTCTTAGTATATCCTGGTCTCCAGATGGCAAGAAGCT
GGCCTCAGGCTGCAAGAAATGGCCAGATTCTCCTCTGGGACCCAAGCACAGGGAAGCAGGTGGGCAGGACCCCTCGC
TGGCCACAGCAAGTGGATCACAGGCCTGAGCTGGGAGCCCCCTCCATGCGAACCCCTGAGTGCCGCTATGTGGCCAG
CAGCTCCAAGGATGGCAGTGTGCGGATCTGGGACACAACCTGCAGGCCGCTGTGAGCGCATCCTCACCGGGCACAC
CCAGTCGGTCACCTGTCTCCGGTGGGGAGGGGACGGGCTTCTCTACTCTGCCTCCCAGGACCGCACCATCAAAGT
CTGGAGAGCTCATGACGGTGTGCTGTGCCGGACTCTGCAAGGCCACGGCCACTGGGTGAACACCATGGCCCTCAG
CACTGACTATGCCCTGCGCACTGGGGCCTTTGAACCTGCTGAGGCCTCAGTTAATCCCAAGACCTCCAAGGATC
CTTGACAGGAGTTGAAGGAGAGGGCTCTGAGCCGATACAACCTCGTGCGGGGCCAGGCTCCAGAGAGGCTGGTGTC
TGGCTCCGACGACTTCACCTTATTCCTGTGGTCCCCAGCAGAGGACAAAAAGCCTCTCACTCGGATGACAGGACA
CCAAGCTCTCATCAACCAGGTGCTCTTCTCTCCTGACTCCCGCATCGTGGCTAGTGCCTCCTTTGACAAGTCCAT
CAAGCTGTGGGATGGCAGGACGGGCAAGTACCTGGCTTCCCTACGCGGCCACGTGGCTGCCGTGTACCAGATTGC
GTGGTCAGCTGACAGTCGGCTCCTGGTCAGCGGCAGCAGTGACAGCACACTGAAGGTGTGGGATGTGAAGGCCCA
GAAGCTGGCCATGGACCTGCCCCGGCCACGCGGATGAGGTATATGCTGTTGACTGGAGTCCAGATGGCCAGAGAGT
GGCAAGTGGTGGGAAGGACAAATGCCCTCCGGATATGGAGGAGATGAGACGGCCCCGAAGTTCTCTCTGACCCCCAC
CTCGACTCGGCCTCTGCCAGCTGCCCTTCCCTGCCAGAGAACAAGGCTGAGATGGCAGTGCACACACCCCTCCCCA
CCAGTGGGGACCTGAGAAATGCGTGTGGCCTGCTGTCTCGATAGACCGGAATGGGGTTTTCCACAGATCCCCGC
CTGTGGCACACCCCAGAGCCAGAAATCGAAGGTCACAGGAAGTTGTCACTGAACTTGGCCCGTGTCTGCTACTCT
GTACCTTGCTGGTACAGACAGGGGTGGTGGGCAGCCAGGCTCTATGAGTGGGCCCTAGTGTGAGCTCTGTACAG
GGTCAGATCCCAGGTTCTATGACCAATAAGTAACTTAAGTTTTGTGTGTTGGGTTCTAATTCCTTGCTCTAGAA
TCCCCATGACTCAATCAAGGACTGTGCTAAATGAGATTGTCCAGCCCCCGCCCTTGCACTGGACTACGCCAAAAC
CACACTGACCAGGCACITGCCCTTCCCTCTCTTCCCCCGTGTGGTAAGAGAGAGAGGCCAGTTGTGATAGTGGCCAA
GGAGAATCTAGGGCTGTATTGTTGTCCACTGCAGTAGGCACCGGCCACATGTGACTGCTGGCATGAAATAGAAGT
GCAGTTCTCTCCATCGCACTGGGTAAGGCCTCCAGTATTGGACAGCACACAGAAAGGTTTTTCATCATCAAGAGAGT
TCTGCTGGTCAGCCCTGCTCCAGGGGATGCCCTCTGCCCTTCGATAGCACACTGCTTGAGGCCCTGCCAGGCACCA
AGCACTGCCCTGGGCCCATGGGATAGAGCGGGGAAGGTGATGGCTCTTCCAGAGGATTCCCTCAGATGGGGAGGC
AGCAGTATGAGCTCTGAGCAGAAGTGGGTATTGTTGATACAGAGGAAGTTCTTTGCCACGAGAACTTTCAAGCAG
TGAAAGGAATTTCCATCAGGACTCAGACCCCAGGCCGAGATCTTGCCCTGAATGTACCTGCCCTCTGCTTTCTCC
TGCATCCCATGCTAAGCAGGGTCATGGTCTGAACTACTCAGATTGGATTTCCAAACCATCCTTGATAAACTGCT
CAGAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4793

MAAAVADEAVARDVQRLLLVQFQDEGGQLLGSPFDVPVDITPDRLQLVCNALLAQEDPLPLAFFVHDAEIVSSLGK
TLESQAVETEKVLDIIYQPQAIFRVRAVTRCTSSLEGHSEAVISVAFSPTGKYLASGSGDITVRFWDLSTETPHF
TCKGHRHWVLSISWSPDGKKLASGCKNGQILLWDPSTGKQVGRTLGHGSKWITGLSWEPLHANPECRYVASSSKD
GSVRIWDTTAGRCERILTGHTQSVTCLRWGGDGLLYSASQDRTIKVWRAHDGVLCRTLQGHGHWVNTMALSTDYA
LRTGAFEPAEASVNPQDLQGSLOELKERALSRYNLVRGQGPRLVSGSDDFTLFLWSPAEDKKPLTRMTGHQALI
NQVLFSPDSRIVASASFDKSIKLWDGRTGKYLASLRGHVAAVYQIAWSADSRLLVSGSSDSTLKVWDVKAQKLAM
DLPGHAEVYAVDWSPDGQRVASGGKDKCLRIWRR

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FIGURE 4794A

GTGCAGTGGCACGATCTTGGTTCCACCACAATCTCGTCTCGAAGGCTCAGGTGATTCTCTCACCTCAGCCGCCTGA
GTAGCTGGGACCACAGTTTCAGCTGTGAGTTCAACATGGAGGCAAATCAGTGCCCCCTGGTTGTGGAACCATCTT
ACCCAGACCTGGTCAATCAATGTAGGAGAAGTGACTCTTGGAGAAGAAAACAGAAAAAGCTGCAGAAAATTCAGA
GAGACCAAGAGAAGGAGAGAGTTATGCGGGCTGCATGTGCTTTATTAACTCAGGAGGAGGAGTGATTGCAATGG
CCAAGAAGGTTGAGCATCCCGTGGAGATGGGACTGGATTAGAACAGTCTTTGAGAGAGCTTATTAGTCTTCAG
ATCTGCAGGCTTTCTTTGAGACCAAGCAACAAGGAAGGTGTTTTTACATTTTGTAAATCTTGGAGCAGTGGCC
CTTTCCCTGAAGATCGCTCTGTCAAGCCCCGCTTTGCAGCCTCAGTTCTTCATTATACCGTAGATCTGAGACCT
CTGTGCGTTCCATGGACTCAAGAGAGGCATTCTGTTTCTGAAGACCAAAAGGAAGCCAAAATCTTGGAAGAAG
GACCTTTTACAAAAATTCACAAGGGTGTATACCAAGAGCTCCCTAACTCGGATCCTGCTGACCCAACTCGGATC
CTGCTGACCTAATTTTCCAAAAAGACTATCTTGAATATGGTGAAATCCTGCCTTTTCTGAGTCTCAGTTAGTAG
AGTTTAAACAGTTCTCTACAAAACACTTCCAAGAATATGTAAGGACAATTCCAGAATACGTCCCTGCATTTG
CAAACACTGGAGGAGGCTATCTTTTTATTGGAGTGGATGATAAGAGTAGGGAAGTCTGGGATGTGCAAAAGAAA
ATGTTGACCTTGACTCTTTGAGAAGGAAAATAGAACAGCCATATACAACTACCTTGTGTTTCAATTTTGCCAAC
CCCAACGCCCCGATAACCTTACACTCAAAATTGTGAATGTGTTAAAAAGGGGAGAGCTCTATGGCTATGCTTGCA
TGATCAGAGTAAATCCCTTCTGCTGTGAGTGTCTCAGAAGCTCCCAATTCATGGATAGTGGAGGACAAGTACG
TCTGCAGCTGACAACCGAGAAATGGGTAGGCATGATGACAGACACAGATCCAGATCTTCTACAGTTGTCTGAAG
ATTTTGAATGTCAGCTGAGTCTATCTAGTGGGCCTCCCTTAGCAGACCAAGTGTACTCCAAGAAAGGCCTGGAAC
ATAAAAGGAACTCCAGCAACTTTTATTTTTCAGTCCCACCAGGATATTTGCGATATACTCCAGAGTCACTCTGGA
GGGACCTGATCTCAGAGCACAGAGGACTAGAGGAGTTAATAAATAAGCAAATGCAACCTTTCTTTCGGGGAATTT
TGATCTTCTCTAGAAGTTGGGCTGTGGACCTGAACCTTGCAAGGAGAAGCCAGGAGTCATCTGTGATGCTCTGCTGA
TAGCACAGAACAGCACCCCCATTCTCTACACCATTCTCAGGGAGCAAGATGCAGAGGGCCAGGACTACTGCACTC
GCACCGCCTTTACTTTGAAGCAGAAGCTAGTGAACATGGGGGGCTACACCGGAAGGTGTGTGTCAGGGCCAAGG
TCCTCTGCCTGAGTCTGAGAGCAGCGCAGAGGCCTTGGAGGCTGCAGTGTCTCCGATGGATTACCCTGCGTCTCT
ATAGCCTTGCAAGGCACCCAGCACATGGAAGCCCTGCTGCAGTCCCTCGTGATTGTCTTACTCGGCTTCAGGTCTC
TCTTGAGTGACCAGCTCGGCTGTGAGGTTTTAAATCTGCTCACAGCCCAGCAGTATGAGATATTCTCCAGAAGCC
TCCGCAAGAACAGAGAGTTGTTTGTCCACGGCTTACCTGGCTCAGGGAAGACCATCATGGCCATGAAGATCATGG
AGAAGATCAGGAATGTGTTTCACTGTGAGGCACACAGAATCTCTACGTTTGTGAAAACCAGCCTCTGAGGAACT
TTATCAGTGATAGAAATATCTGCCGAGCAGAGACCCGAAAACCTTTCTAAGAGAAAACCTTTGAACACATTCAAC
ACATCGTCATTGACGAAGCTCAGAATTTCCGTACTGAAGATGGGGACTGGTATGGGAAGGCAAAAAGCATCACTC
GGAGAGCAAAGGGTGGCCCAGGAATCTCTGGATCTTTCTGGATTACTTTAGACCAGCCACTTGGATTGCAGTG
GCCTCCCTCCTCTCTCAGACCAATATCCAAGAGAAGAGCTCACCAGAATAGTTCGCAATGCAGATCCAATAGCCA
AGTACTTACAAAAGAAATGCAAGTAATTAGAAGTAATCCTTCAATTAACATCCCCACTGGGTGCCTCGAGGTAT
TTCTTGAAGCCGAATGGTCCCAGGGTGTTCAGGGAACCTTACGAATTAAGAAATACTTGACTGTGGAGCAAAATA
TGACCTGTGTGGCAGACACGTGCAGGCGCTTTTGTATAGGGGCTATTCTCAAAGGATGTTGCTGTGCTTGTC
GCACCGCAAAAAGAGTGGAGCACTATAAGTATGAGCTCTTGAAAGCAATGAGGAAGAAAAGGGTGGTGCAGCTCA
GTGATGCATGTGATATGTTGGGTGATCACATTGTGTTGGACAGTGTTCCGGCGATTCTCAGGCCCTGGAAAGGAGCA
TAGTGTTTGGGATCCATCCAAGGACAGCTGACCCAGCTATCTTACCCAATGTTCTGATCTGTCTGGCTTCCAGGG
CAAAACAACACCTGTATATTTTTCCGTGGGGTGGCCATTAGGAAGAACTCCAAATCAAAATGCTATGTAAATGTC
TATGGGTGACAGTCTGCTGATGGTAGAAACCTTTCTTTTTAGTTTACAAGTCAGAGATTGGACGGAGCTGACAC
AAAGAGTTTGGAGCTCCCCCATTTCTGGCTCTCCTTTTCAGGGGTTCTTCCCAACCTTTTCAGCAGCGGTGGCT
GCCCCCATTTCTGACCCCTGACTCTTCCAGCCAGAAAGATGGTGGTTTTCTAAAGGAACCTTTAGCTGTCTGCAC
AATGCCGATCTGTGCTTGCATTTTGGGTAAAAGCCATAAAAATAAGAACTCAGCCTGTGGCCTTTCTTTCTTC
CAAGGCTGGGCTTCTTTTTTAAGTGACTTCATGCAGTTTGTGCTTTTAAAAATTTGTCCAGAATCGTTTTCTG
CAGAAGCATGGTCTGTTAGGAGCTTACTGGCCGTAGCAGAAGCAATTGTTTCTGAATCTTGACATTTATCTTT
GCTGTATTCAATTTAGGGCTTGGGAGAGTCCGAAGATAATTCAGTCACTGTGAGATTAAATAATTTGTGAGGACAA
AGAATACCGTTATGATTATTTAATCCTTTAAATTTGGTCTCCAGAGCTTGTCTCAGAATGGCCCAGACCAAG
CCTTAATTTGTGATAGTGAATATTAATGGTCACTTTAAAGGAGAAATTATAGGCCAAGATGAAATGAACATAAACCT
GTTTGCCCTGGCTTTTCAGTGGAAGATGATATTAGAGACCAAAATCTGGTTCTGAAGGTGTGTATCAGCCCTAAGG

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FIGURE 4794B

TGAACCAGACTTGGGAAAGATTGTCTTTAAAAATCAATGAGTTTATGTTTTAACTTCTCAGCTTAGTTCTATGCA
TTGCTCTATAACACACCTAGTTAAGTTTTATGTTATTCTTGAAGTGTGATTTTTTTTTCTATTTACTTTTCATGGTT
TGGTGGGCCATTGTTATGGACTGAATGTTTGTGTCCACCCCTTCACCCCCAAATTCCTGTGTTGAAGCCCCAAC
TGCACTGTGGAGCTGGGGCTGCTAAGGAAGTAATTAAGGTTACATGAAGTCATGGTGGGGCTCTGATCTGCTAAG
GTTGGTGTCTTATAGGGAGAGACCCCAGAGAGCTTGTTCCTCCCTCCCTGTGCATGCAAACAAGAGGGCATGG
GAGCACACAGAGAGATGGCAGCCACCTACAAGCCAAGAGGAGAAGCCTCACAATCAAACCTCTCGCTGCTGGCGAG
AGTCTTGGACTCTGTCTTGGACTTCCAGCCTCCAGACTGTGAGAAACAAATTTCTGTTGTTTCAGCTTCTCAGTC
TCTGGTGTGTTTTGTTATTGTCAGCCTGAGAACACAGCTGTACGATTATTTGTCAAACAGAAAACACTGATACTTAAC
AATGCTAATGCAATTATTTATTTGCTTTTTCAGTCTCTACAAAACGTTCTAAAACACTAATCTAAATATTAACAGT
AAAAATATTTGCATAACTAATGGAAACTAAGAAATCATATGACCAATATTTCACTTATTGGTAATCTTACTCTACT
GATTTCCCCCAGACTGTGATTTTTGAACTTCCTTGCCTTTCTCCTGTCTTTCTGTGTTTATTCATGGAATTCCA
GTTATCTGGGCTTGAAATTGCAGGCTCTCCTAACTTAAGCAAAATCTGACAGATCAGCAAAATGAGATAAATGTT
TCTTTTTTCTTTCTGACTGCATTAAATCAGATACAACTCAGCATTAAAAAGCTATCTTTGTAAATGTTGTTACTA
ATAAATTAGTCTTATAAGATCCCTGGACTTTGGAGTTGTTGCAATGTCTTTGAGAGTAATTTCTTTAAAGTCTAA
TTTCGACTGGTTGTATCTCTTTATGATTTATTGCCCACTAACAATATTTGAAACAATATAATATTTTAAATGT
ATAAATAATTATGAATTTTTGTTTAGAACAAAGAGGATTACTGATATTTGTTTCCCTATGAATGGCAAAAGGTTT
AGCTTACTACTGCATTTCTGTTTTAAATAAAAAGTTGAGAGTTTGTGTCTCATTAACTG

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FIGURE 4795

MEANQCPLVVEPSYPDLVINVGCVTLGEENRKKLQKIQRDQEKERVMAACALLNSGGGVIRMAKKVEHPVEMGL
DLEQSLRELIQSSDLQAFFETKQQGRCFYIFVKSWSSGPFPEDRSVKPRLCSSSLYRRSETSVRSMDSREAF
FLKTKRKP KILEEGPFHKIHKGVYQELPNSDPADPNSDPADLIFQKDYLEYGEILPFPESQLVEFKQFSTKHQ
YVKRTIPEYVPAFANTGGGYLFIGVDDKSREVLGCAKENVDPDSLRRKIEQAIYKLPCVHFCQPQRPITFTLKIV
NVLKRGELYGYACMIRVNPFCFAVFSEAPNSWIVEDKYVCSLTTEKWVGMMTDTPDLLQLSEDFECQLSLSSGP
PLSRPVYSKKGLEHKKELQQLLSVPPGYLRYTPESLWRDLISEHRGLEELINKQMOPFFRGILIFSRSWAVDLN
LQEKPGVICDALLIAQNSTPILYTLREQDAEGQDYCTRFTAFTLKQKLVNMGGYTGKVCVRKVLCLSPSSAEA
LEAAVSPMDYPASYSLAGTQHMEALLQSLVIVLLGFRSLSDQLGCEVLNLLTAQQYEIFSRSLRKNRELFVHGL
PGSGKTIMAMKIMEKIRNVFHCEAHRILYVCENQPLRNFI SDRNICRAETRKTFLRENFEHIQHIVIDEAQNFRT
EDGDWYGKAKSITRRAKGGPGILWIFLDYFQTSHLDCSGLPPLSDQYPREELTRIVRNADPIAKYLQKEMQVIRS
NPSFNIPITGCLEVFPEAEWSQGVQGTLRICKYLTVEQIMTCVADTCRRFFDRGYSPKDVAVLVSTAKEVEHYKYE
LLKAMRKKRVVQLSDACDMLGDHIVLDSVRRFSGLEERSIVFGIHPRTADPAILPNVLICLASRAKQHLYIFPWGG
H

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FIGURE 4796A

AATTCTCGAGCTCGTTCGACCGGTCGACGAGCTCGAGGGTCGACGAGCTCGAGGGCGCGCGCCCCGGCCCCACCCC
TCGCAGCACCCCCGCGCCCCGCGCCCTCCCAGCCGGGTCCAGCCGGAGCCATGGGGCCGGAGCCGAGTGAAGCACC
ATGGGAGCTGGCGGCCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCGGAGCCGCGAGCACCCAAGTG
TGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCGAGACCCACCTGGACATGCTCCGCCACCTCTAC
CAGGGCTGCCAGGTGGTGCAGGGAAACCTGGAACCTACCTACCTGCCACCAATGCCAGCCTGTCTTCTCTGCAG
GATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGGTCCCAGTGCAGAGGGTGCAGG
ATTGTGCGAGGCGACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCTAGACAATGGAGACCCGCTGAACAAT
ACCACCCCTGTTCACAGGGGGCTCCCCAGGAGGCTGCGGGAGCTGCAGCTTCGAAGCCTCACAGAGATCTTGAAA
GGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAGGACACGATTTTGTGGAAGGACATCTTCCACAAG
AACAAACAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAG
GGCTCCCGCTGCTGGGGAGAGAGTCTGAGGATTGTGAGAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCC
CGCTGCAAGGGGCCACTGCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCAAGCACTCT
GACTGCCTGGCCTGCCTCCACTTCAACCACAGTGGCATCTGTGAGCTGCACTGCCAGCCCTGGTCACCTACAAC
ACAGACACGTTTGAGTCCATGCCCAATCCCGAGGGCCGGTATACATTCGGCGCCAGCTGTGTGACTGCCTGTCCC
TACAACTACCTTTCTACGGACGTGGGATCCTGCACCCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAG
GATGGAACACAGCGGTGTGAGAAGTGACAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG
CGAGAGGTGAGGGCAGTTACCAAGTGCCAATATCCAGGAGTTTGTGCTGGCTGCAAGAAGATCTTTGGGAGCCTGGCA
TTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCCGCTCCAGCCAGAGCAGCTCCAAGTGTTT
GAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCTGACCTCAGCGTCTTC
CAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGACCTGCAAGGGCTGGGCATC
AGCTGGCTGGGGCTGCGCTCACTGAGGGAACTGGGCAGTGGACTGGCCCTCATCCACCATAACACCCACCTCTGC
TTCGTGCACACGGTGCCCTGGGACCACTCTTTCGGAACCCGCACCAAGCTCTGCTCCACACTGCCAACCAGGCCA
GAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCACTGTGCGCCCGAGGGCACTGCTGGGGTCCAGGGCCC
ACCCAGTGTGTCAACTGCAGCCAGTTCTTTCGGGGCCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGCTC
CCCAGGGAGTATGTGAATGCCAGGCACTGTTTGCCGTGCCACCCCTGAGTGTGAGCCCAAGATGGCTCAGTGACC
TGTTTTGGACCGAGGCTGACCAGTGTGTGGCCTGTGCCCACTATAAGGACCCCTCCCTTCTGCGTGGCCCGTGC
CCCAGCGGTGTGAAACCTGACCTCTCTACATGCCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCT
TGCCCCATCAACTGCACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCCGCCAGCAGAGAGCCAGCCCT
CTGACGTCCATCGTCTCTGCGGTGGTTGGCATCTGCTGGTCTTGGGGTGGTCTTTGGGATCCTCATC
AAGCGACGGCAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG
ACACCTAGCGGAGCGATGCCCAACCAAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGAAGGTG
CTTGATCTGGCGCTTTTGGCACAGTCTACAGGGCACTCTGGATCCCTGATGGGGAGAATGTGAAAATTCCAGTG
CCCATCAAAGTGTTGAGGGAAAACACATCCCCAAAGCCAAACAAAGAAATCTTAGACGAAGCATACGTGATGGCT
GGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGCTGGTGCACAGCTT
ATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCCTGGGCTCCCAGGACCTGCTGAAGTGG
TGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACACAGGGCACTTGCCGCTCGGAAC
GTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTCGGGCTGGCTCGGCTGCTGGACATTGACGAGACA
GAGTACCATGCAGATGGGGGCAAGGTGCCATCAAGTGGATGGCGCTGGAGTCCATTCTCCGCCGGCGGTTACC
CACCAGAGTGATGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGG
ATCCCAGCCCGGGAGATCCCTGACCTGCTGGAAAAGGGGAGCGGCTGCCCCAGCCCCCATCTGCACCATTGAT
GTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAATGTGCGCCAAGATTCCGGGAGTTGGTGTCTGAA
TTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCATCCAGAATGAGGACTTGGGGCCAGCCAGTCCCTTG
GACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTA
CCCCAGCAGGGCTTCTTCTGTCCAGACCCTGCCCCGGGCGCTGGGGGCAATGGTCCACCACAGGCACCGCAGCTCA
TCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGGCCCCAGGTCTCCACTG
GCACCCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGAACCTGGGAATGGGGGCGAGCCAAGGGGCTGCAAGC
CTCCCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAGGACCCACAGTACCCCTGCCCTCTGAGACTGAT
GGCTACGTTGCCCCCTGACCTGCAGCCCCAGCCTGAATATGTGAACAGCCAGATGTTTCGGCCCCAGCCCCCT

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FIGURE 4796B

TCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCCGACCTGCTGGTGCCACTCTGGAAAGGGCCAAGACTCTCTCCCCA
GGGAAGAATGGGGTCGTCAAAGACGTTTTTGCCTTTGGGGGTGCCGTGGAGAACCCCGAGTACTTGACACCCAG
GGAGGAGCTGCCCCCTCAGCCCCACCTCCTCCTGCCTTCAGCCCAGCCTTCGACAACCTCTATTACTGGGACCAG
GACCCACCAGAGCGGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCCAGAGTACCTGGGT
CTGGACGTGCCAGTGTGAACCAGAAGGCCAAGTCCGCAGAAGCCCTGATGTGTCCTCAGGGAGCAGGGAAGGCCT
GACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCACCTTCAGGGGAACCTGCCATGCCAGGAACCTGTC
CTAAGGAACCTTCCTTCCTGCTTGAGTTCCCGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCAC
TGGGGAGTCTTTGTTGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAGTGGATGCCACAGCCCAGCTTGG
CCCTTTCCTTCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGAGGGGAAGCGGCCCTAAGGGAGT
GTCTAAGAACAAAAGCGACCCATTGAGAGACTGTCCCTGAAACCTAGTACTGCCCCCATGAGGAAGGAACAGCA
ATGGTGTCAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTAGTTTTTACTTTTTTTGTTTTGTTTTTTAAA
GACGAAATAAAGACCCAGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTGGGGGTCCTTCTCCACACCCACT
TTGTCCATTTGCAAATATATTTTGGAAAAC

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FIGURE 4797

MELAAALCRWGLLLALLPPGAASTQVCTGTDMLRLPASPETHLDMLRHLYQGCQVVQGNLELYLPTNASLSFLQ
DIQEVQGYVLIAHNQVRQVPLQRLRIVRGTLFEDNYALAVLDNGDPLNNTTPVTGASPGGLRELQRLSLTEILK
GGVLIQRNPQLCYQDTILWKDIFHKNNQLALTIDTNRSRACHPCSPMCKGSRWGESSEDCQSLTRTVCAGGCA
RCKGPLPTDCCHEQCAAGCTGPKHSDCLACLHFNHSGICELHCPALVTYNTDTFESMPNPEGRTYFGASCVTACP
YNYLSTDVGSCTILVCPLHNQEVTAEEDGTQRCCEKCSKPCARVCYGLGMEHLREVRVAVTSANIQEFAGCKKIFGSLA
FLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLPLSVFQNLQVIRGRILHNGAYSLTLQGLGI
SWLGLRSLRELGSGLALIHNNTHLCFVHTVPWDQLFRNPHQALLHTANRPEDECVGEGLACHQLCARGHCWGPGP
TQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECQPQNGSVTCFGPEADQCVACAHYKDPFFCVCAR
PSGVKPDLSYMPIWKFPDEEGACQPCPINCTHSCVDLDDKGCPAEQRASPLTSIVSAVVGILLVVVLGVVFGILI
KRRQQKIRKYTMRRLLQETELVEPLTPSGAMPNQAQMRILKETELRKVKVLGSGAFGTVYKGIWIPDGENVKIPV
AIKVLRENTSPKANKEILDEAYVMAGVGSPYVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRRGLGSQDLLNW
CMQIAKGMSYLEDVRLVHRDLAARNVLVKSPNHVKITDFGLARLLDIDETEHADGGKVPIKWMALLESILRRRFT
HQSDVWSYGVTVWELMTFGAKPYDGIPAREIPDLLEKGERLPQPPICTIDVYMIMVKCWMIDSECRPRFRELVE
FSRMARDPQRFVVIQNEDLGPASPLDSTFYRSLLEDDDMGDLVDAEYLVPPQGGFFCPDPAPGAGGMVHHRHRS
STRSGGDLTLGLEPSEEEAPRSPLAPSEGAGSDVFDGDLGMGAAGLQSLPTHDPSPQLQRYSEDPTVPLPSETD
GYVAPLTCSPQPEYVNQPDVRPQPPSPREGPLPAARPAGATLERAKTLPKGKNGVVKDVFAFGGAVENPEYLTPQ
GGAAPQPHPPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPTAENPEYLGLDVPV

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FIGURE 4798

CTTTCCTTTTCGCTGCTGCGGCCGCAGCCATGAGTATGCTCAGGCTTCAGAAGAGGCTCGCCTCTAGTGTCTCCG
CTGTGGCAAGAAGAAGGTCTGGTTAGACCCCAATGAGACCAATGAAATCGCCAATGCCAACTCCCGTCAGCAGAT
CCGGAAGCTCATCAAAGATGGGCTGATCATCCGCAAGCCTGTGACGGTCCATTCCCGGGCTCGATGCCGGAAAAA
CACCTTGGCCCCGCCGGAAGGGCAGGCACATGGGCATAGGTAAGCGGAAGGGTACAGCCAATGCCCGAATGCCAGA
GAAGGTCACATGGATGAGGAGAATGAGGATTTTTCGCGCCGGCTGCTCAGAAGATAACCGTGAATCTAAGAAGATCGA
TCGCCACATGTATCACAGCCTGTACCTGAAGGTGAAGGGGAATGTGTTCAAAAACAAGCGGATTCTCATGGAACA
CATCCACAAGCTGAAGGCAGACAAGGCCCGCAAGAAGCTCCTGGCTGACCAGGCTGAGGCCCGCAGGTCTAAGAC
CAAGGAAGCACGCAAGCGCCGTGAAGAGCGCCTCCAGGCCAAGAAGGAGGAGATCATCAAGACTTTATCCAAGGA
GGAAGAGACCAAGAAATTAAAACCTCCCACCTTTGTCTGTACATACTGGCCTCTGTGATTACATAGATCAGCCATTA
AAATAAAACAAGCCTTAATCTGC

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FIGURE 4799

MSMLRLQKRLASSVLRGKKKVWLDPNETNEIANANSRQQIRKLIKDGLIIRKPVTVHSRARC RKNTLARRKGRH
MGIGKRKGTANARMPEKVTWMRRMRILRRLRLRYRESKKIDRHMYHSLYLKVKGNVFKNKRILMEHIHKLKADKA
RKKLLADQAEARRSKTKEARKRREERLQAKKEEIIKTLSKEEETKK

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FIGURE 4800A

AGCTCCAGCCGCCGTGCTGCTGCTGTGTAGTTGCAGCCGCGGCGCCTCCCGCCAGCTCGCCTCGGGGAACAG
GACGCGCGTGAGCTCCAGGGCXTCCCCGCCCCAGCTTTTCTCGGAACCATGAACCCCAACTGCGCCCGGTGCGGC
AAGATCGTGATCCACGGAGAAGGTGAAGTGTCTGGATAAGTTCTGGCATAAAGCATGCTTCCATTGCGAGACC
TGCAAGATGACACTGAACATGAAGAACTACAAGGGCTACGAGAAGAAGCCCTACTGCAACGCACACTACCCCAAG
CAGTCCTTACCATGGTGGCGGACACCCCGGAAAACCTTCGCCTCAAGCAACAGAGTGAGCTCCAGAGTCAGGTG
CGCTACAAGGAGGAGTTTGAGAAGAACAAGGGCAAAGGTTTCAGCGTAGTGGCAGACACGCCCGAGCTCCAGAGA
ATCAAGAAGACCCAGGACCAGATCAGTAACATAAAATACCATGAGGAGTTTGAGAAGAGCCGCATGGGCCCTAGC
GGGGGCGAGGGCATGGAGCCAGAGCGTCGGGATTACAGGACGGCAGCAGCTACCGGGCGGCCCTGGAGCAGCAG
CAGCCTCACCACATCCCGACCACTGCCCCGGTTTACCAGCAGCCCCAGCAGCAGCCGGTGGCCAGTCCTATGGT
GGCTACAAGGAGCCTGCAGCCCCAGTCTCCATACAGCGCAGCGCCCCCATCTGTCTTCAGCACATTCCACGGCAT
CGCATCCGTCCTGGGCGTGACCCGTCCATTCTTCAGTGTCTCTGTTTTTAAACCTGCGACAGCTTGTGATTCC
TACCCCTCTTCCAGCTTCTTTTGCCAACTGAAGCCTTCTTCTGCCACTTCTGCGGGCTCCCTCCTCTGGCAGGCT
TCCCCCTTGATCGACTTCTTGGTTTTCTCTCTGGATGGAACGGGCATGGGCCTCTCTGGGGGAGGCAGGGCTGGA
ATGGGAGACCTGTTGGCCTGTGGGCCTCACCTGCCCTCTGTTCTCTCCCTCACATCTCTGCCAGCTCCTC
ACATACCCACACATTCAGGGCTGGGGTGAGCCTGACTGCCAGGACCCAGGTGAGGGGCTCCCTACATTCCCCA
GAGTGGGATCCACTTCTTGGTTCTGGGATGGCGATGGGGACTCTGCCGCTGTGTAGGGACCAGTGGGATGGGCT
CTACCTCTCTTCTCAAAGAGGGGGCTCTGCCACCTGGGGTCTCTCTCCCTACCTCCCTCCTCAGGGGCAACAA
CAGGAGAATGGGGTTCTGCTGTGGGGCGAATTCATCCCTCCCGCGCGTTCCTTCGCACACTGTGATTTGCC
CTCCTGCCACGCAGACCTGCAGCGGGCAAAGAGCTCCCGAGGAAGCACAGCTTGGGTGAGTTCTTGCTTTCT
TAATTTTAGGGACAGCTACCGGAAGGAGGGGAACAAGGAGTTCTTCCGCGAGCCCTTTCACGCCACCCACCC
CAGTCTCCAGGGACCTTGCTGCTCCTAGGCTGGAAGCCATGGTCCCGAAGTGTAGGGCAAGGGTGCTCAGG
ACCTTTTGGTCTTCAGCCTCCCTCAGCCCCCAGGATCTGGGTAGGTGGCCGCTCCTCCCTGCTCCTCATGGAA
GATGTCTCAGAGCCTTCCATGACCTCCCTCCCGAGCCCAATGCCAAGTGGACTTGGAGCTGCACAAAGTCAGCA
GGGACCACTAAATCTCCAAGACCTGGTGTGCGGAGGCAGGAGCATGTATGTCTGCAGGTGTCTGACACGCAAGTG
TGTGAGTGTGAGTGTGAGAGATGGGGCGGGGGTGTGTCTGTAGGTGTCTCTGGGCTGTGTGGGTGGGGTTAT
GTGAGGTATGAAGAGCTGTCTTCCCTGAGAGTTTCCCTCAGAACCACAGTGAGAGGGGAGGGCTCCTGGGGCA
GAGAAGTTCTTAGGTTTTCTTTGGAATGAAATTCCTCCTTCCCCCATCTCTGAGTGGAGGAAGCCACCAATC
TGCCCTTTGCAGTGTGCAGGGTGGAAGGTAAAGAGTTGGTGTGGAGTTGGGGCTGCCATAGGTCTGCAGCCTGC
TGGGGCTAAGCGGTGGAGGAAGGCTCTGTCACTCCAGGCATATGTTTCCCCATCTCTGTCTGGGGCTACAGAATA
GGGTGGCAGAAGTGTACCCCTGTGGGTGTCTCCCTCGGGGCTCTTCCCTAGACCTCCCCCTCACTTACATAAA
GCTCCCTTGAAGCAAGAAAGCTCTCTGCTCATGGGTGGCTGTGACAACCTGGCCTCACTTGATTATCTCTGGT
TTTCTTGCCACCTCTGGGAGTCCCCATCCATTTTATCCTGAGCCCAACCAGGCCCTGCCATTGGCCTCTTGT
CCCTTGGCACACTTGTACCCACAGGTGAGGGGCAGGACCTGAAGGTATTGGCCTGTTCAACAATCAGTCATCATG
GGTGTTTTTGTCAACTGCTTGTAAATTGATTTGGGGATGTTTGGCCCGAATGAGAGGTTGAGGAAAAGACTGTGG
GTGGGGAGGCCCTGCCTGACCCATCCCTTTCTTTCTGGCCCCAGCCTAGGTGGAGGCAAGTGGAATATCTTAT
ATTGGGCGATTTGGGGGCTCGGGGAGGCAGAGAATCTTGGGAGTCTTGGGTGGCGCTGGTGCATTCTGTTTCC
TCTTGATCTCAAAGCACAAATGTGGATTTGGGGACCAAAGGTCAGGGACACATCCCTTAGAGGACCTGAGTTTGG
GAGAGTGGTGAGTGGAAGGGAGGAGCAGCAAGAAGCAGCCTGTTTTCACTCAGCTTAATCTCCTTCCAGATAA
GGCAAGCCAGTCATGGAATCTTGCTGCAGGCCCTCCCTTACTCTTCTGTCTTAAAAATAGGGGCGGTTTTCTT
ACACACCCCCAGAGAGAGGAGGGACTGTACACTGGTGTGAGTGACCGGGGGCTGCTGGGCGCTGTGTTCTTTAC
CAAAACCATCCATCCCTAGAAGAGCACAGAGCCCTGAGGGGCTGGGCTGGGCTGAGCCCCCTGGTCTTTCTC
TACAGTTCACAGAGGTCTTTTACGCTCATTTAATCCAGGAAAGAGGCATCAAAGCTAGAATGTGAATATAACTTT
TGTGGACCAATACTAAGAATAACAAGAAGCCAGTGGTGAGGAAAGTGCGTTCTCCAGCACTGCCTCCTGTTTT
CTCCCTCTCATGTCCCTCCAGGGAATAAGACTTTATTGCTTAATTTCTGCCTTTCCCCCTCACACATGCACCTT
TGGGCTTTTTTTTATAGCTGGAAAAAACAAATACCACCTACAAACCTGTATTTAAAAAGAAACAGAAATGACC
ACGTGAAATTTGCCTCTGTCCAAACATTTTATCCGTGTGTATGTGTATGTGTGTGAGTGTGTGAAGCCGCCAGTT
CATCTTTTTTATAGGGGTTGTGTCTCATTTTGGTCTGTTTTGGTCCCCCTCCCTCGTGGGCTGTGTCTGGGATC
AAACCTTTCTGGCCTGTTATGATTCTGAACATTTGACTTGAACCACAAGTGAATCTTTCTCCTGGTGACTCAAAAT

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FIGURE 4800B

AAAAGTATAATTTTTACCTGC

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FIGURE 4801

CTTTTTTCTTTTTTCCGGCGTTCAAGATGTCGAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCGGGATTT
CCTTGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGTATATCATCTCCG
TGAAGGGGATCAAGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTGGGTGACATGGTGATGGCCACAGTCAAGA
AAGGCAAACCAGAGCTCAGAAAAAAGGTACATCCAGCAGTGGTCATTGACAACGAAAGTCATACCGTAGAAAAG
ATGGCGTGTTTCTTTATTTTGAAGATAATGCAGGAGTCATAGTGAACAATAAAGGCGAGATGAAAGGTTCTGCCA
TTACAGGACCAAGTAGCAAAGGAGTGTGCAGACTTGTGGCCCCGGATTGCATCCAATGCTGGCAGCATTGCATGAT
TCTCCAGTATATTTGTAAAAAATAAAAAAAACTAAACCCATT

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FIGURE 4802

MSKRGRGGSSGAKFRISLGLPVGAVINCADNTGAKNLYIISVKGIGRLNRLPAAGVGDMVMATVKKGKPELRKK
VHPAVVIRQRKSYRRKDGVFYFEDNAGVIVNNKGEMKGSAITGPVAKECADLWPRIASNAGSIA

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FIGURE 4803

TGCCAGCGGGGAGGCTGCAGCCGCGGGTTGTTACAGCTGCTGGAGCAGCAGCGGCCCCCGCTCCCGGGAACCGTT
CCCGGGCCGTTGATCTTCGGCCCCACACGAACAGCAGAGAGGGGCAGCAGGATGAATGTGGGCACAGCGCACAGC
GAGGTGAACCCCAACACGCGGGTGATGAACAGCCGTGGCATCTGGCTCTCCTACGTGCTGGCCATCGGTCTCCTC
CACATCGTGCTGCTGAGCATCCCGTTTGTGAGTGTCCTGTCTGCTGACCCCTACCAACCTCATTACAAACATG
GGCATGTATATCTTCCTGCACACGGTGAAGGGGACACCCTTTGAGACCCCGGACCAGGGCAAGGCGAGGCTGCTA
ACCCACTGGGAGCAGATGGATTATGGGGTCCAGTTTACGGCCTCTCGGAAGTTCTTGACCATCACACCCATCGTG
CTGTACTTCCTCACCAGCTTCTACACTAAGTACGACCAGATCCATTTTGTGCTCAACACCGTGTCCCTGATGAGC
GTGCTTATCCCAAGCTGCCCCAGCTCCACGGAGTCCGGATTTTGGGAATCAATAAGTACTGAGAGTGCAGCCCC
TTCCCTGCCCAGGGTGGCAGGGGAGGGGTAGGGTAAAAGGCATGTGCTGCAACACTGAAGACAGAAAGAAGAAG
CCTCTGGACACTGCCAGAGATGGGGGTTGAGCCTCTGGCCTAATTTCCCCCCTCGCTTCCCCCAGTAGCCAACTT
GGAGTAGCTTGTAGTGGGGTTGGGGTAGGCCCCCTGGGCTCTGACCTTTTCTGAATTTTTTGATCTTTTCCTTTT
GCTTTTGAATAGAGACTCCATGGAGTTGGTCATGGAATGGGCTGGGCTCCTGGGCTGAACATGGACCACGCAGT
TGCGACAGGAGGCCAGGGGAAAAACCCCTGCTCACTTGTTTGCCCTCAGGCAGCCAAAGCACTTTAACCCCTGCA
TAGGGAGCAGAGGGCGGTACGGCTTCTGGATTGTTTCACTGTGATTCTAGGTTTTTTCGATGCCACGCAGTGTG
TGCTTTTGTGTATGGAAGCAAGTGTGGGATGGGTCTTTGCCCTTCTGGGTAGGGAGCTGTCTAATCCAAGTCCCA
GGCTTTTGGCAGCTTCTCTGCAACCCACCGTGGGTCTGGTTGGGAGTGGGGAGGGTCAGGTTGGGGAAAGATGG
GGTAGAGTGTAGATGGCTTGGTTCCXAGAGGTGAGGGGGCCAGGGCTGCTGCCATCCTGGCCTGGTGGAGGTTGG
GGAGCTGTAGGAGAGCTAGTGAGTCGAGACTTAGAAGAATGGGGCCACATAGCAGCAGAGGACTGGTGTAAAGGGA

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FIGURE 4804

MNVGTAHSEVNPNTVRVMNSRGIWLSYVLAIGLLHIVLLSIPFVSVPVWTLTNLIHNMGMYIFLHTVKGTPFETP
DQGKARLLTHWEQMDYGVQFTASRKFLTITPIVLYFLTSFYTKYDQIHFLNTVSLMSVLIPKLPQLHGVRIFGI
NKY

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FIGURE 4805

GAATTCGCGGCCGCTGGTTTGCAGCTGCTCCGTATCGTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCC
GGCTCGGCTCCTGGTCCCCGGTGCGAGGGTTAACGCGAGGCCCGGCCCTCGGTCCCCGGACTAGGCCGTGACCCC
GGGTGCCATGAAGCAGGAGGGCTCGGCGCGGCGCCGCGGCGGACAAGGCGAAACCGCCGCCCGCGGAGGAGA
ACAAGAACCCCCACCGCCGCCGCCCGCCAGGATGTGGAGATGAAAGAGGAGGCAGCGACGGGTGGCGGGTCAAC
GGGGGAGGCAGACGGCAAGACGGCGGGCGGAGCGGTTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGA
GGACATCAAGGAGCACGTGAAACAGCTAGAGAAAGCGTTTCAGGCAAGGAGCCGAGATTCTGTCTGCGGGCCCT
GCGGATGCTGCCTTCCACATCAGCCGCCCTCAACCACTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTC
AAATAATGCCACTCGAGACTTTTTGCTCCCTTCTGGAAGAGCCCATGGACACAGAGGCTGATTTACAGTTCCG
TCCCCGCACGGGAAAAGCTGCGTCGACACCCCTCCTGCCTGAAGTGGAAGCCTATCTCCAACCTCTCGTGGTCAT
CTTCATGATGAACAGCAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATCTGATGCAGAAGATCAGTACTCA
GAACCGCCGGGCCCTAGACCTTGTAGCCGCAAAGTGTTACTATTATCAGCCCGGGTCTATGAGTTCTTGACAA
GCTGGATGTGGTGCGCAGCTTCTTGATGCTCGGCTCCGGACAGCTACGTTTCGGCATGACGCAGACGGGCAGGC
CACCTGTGTAACCTCCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAA
GTCTGTGTTCCAGAGCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACACAGGGCGAATCAAAGCCAT
CCAGCTGGAGTACTCAGAGGCCCGGAGAACGATGACCAACGCCCTTCGCAAGGCCCTCAGCACACAGCTGTCGG
CTTCAAACAGACGGTGCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGAGATCCCTGACCGGCTGCAGTT
CCGCCAGCCCTCCCTCAAGCGCTCACTCATGCCCTATTTCTTCTGACTCAAGCTGTGAGGACAGGAAACCTAGC
CAAGTTCAACCAGGTCCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCTAATTATCCGGCT
GCGGCACAACGTGATTAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGCTGACATCGC
CCAGAAGCTGCAGTTGGATAGCCCCGAAGATGCAGAGTTCATTGTTGCCAAGGCCATCCGGGATGGTGTGATTGA
GGCCAGCATCAACCACGAGAAGGGCTATGTCCAATCCAAGGAGATGATTGACATCTATTCCACCCGAGAGCCCCA
GCTAGCCTTCCACCAGCGCATCTCCTTCTGCCTAGATATCCACAACATGTCTGTCAAGGCCATGAGGTTTCTCTCC
CAAATCGTACAACAAGGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAA
GGAGATGGCAGAAGATGATGATGACAGCTTCCCTTGAGCTGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAG
GCTCTTTCCCCCTTGGGGGTCCCCTGCCCAGGGCACTGTCCCCATTTCCCACACACAGCTCATATGCTGCATTCT
GTGCAGGGGGTGGGGGTGCTGGGAGCCAGCCACCCTGACCTCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTG
TACAGCAGGCAGGAGGGTGGGCAGGCAACCTCCCCGGGCAGGGTCTTGCCAGCAGTGTGGGAGCAGGAGGGGAA
GGATAGTTCTGTGTACTCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGCTTGTATGTTTTTTGAAGCT
TCGATTATGATTTTTAAACAATAAAAAGTTCTCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAGCGGCCGCGAAT
TC

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FIGURE 4806

MKQEGSARRRGADKAKPPPGGGEQEP PPPAPQDVEMKEEAATGGGSTGEADGKTAAAVEHSQRELDVTLEDI
KEHVKQLEKAVSGKEPRFVLRALRMLPSTSRRLNHVLYKAVQGFFTSNNATRDFLLPFLEEPMDTEADLQFRPR
TGKAASTPLLPEVEAYLQLLVVIFMMNSKRYKEAQKISDDLQKISTQNRRALDLVAAKCYYYHARVYEF LDKLD
VVR SFLHARLRTATLRHDADGQATLLNLLLRNYLHYSLYDQAEKLVSKSVFPEQANNNEWARYLYYTGR IKAIQL
EYSEARRMTNALRKAPQHTAVGFKQTVHKLLIVVELLLGEIPDRLQFRQPSLKRS LMPYFLLTQAVRTGNLAKF
NQVLDQFGEKFQADGTYTLIIRLRHNVIKTGVRMISLSYSRISLADIAQKLQLDSPEDA EFIVAKAIRDGVIEAS
INHEKGYVQSKEMIDIYSTREPQLAFHQRI SFCLDIHNMSVKAMRFPPKSYNKDLESAEERREREQQDLEFAKEM
AEDDDDSFP

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FIGURE 4807

CTCCTCTCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACCATGACCACCTCCATCCGCCAGTTCACC
TCTTCCAGCTCCATCAAGGGCTCCTCCGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCGGCTGTCTGGCGGC
CTGGGTGCCGGCTCCTGCAGGCTGGGATCTGCTGGCGGCTGGGCAGCACCTCGGGGGTAGCAGCTACTCCAGC
TGCTACAGCTTTGGCTCTGGTGGTGGCTATGGCAGCAGCTTTGGGGTGTGTGATGGGCTGCTGGCTGGAGGTGAG
AAGGCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCAAC
ACTGAGCTGGAGGTGAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCGCCGTGACTACAGCCAGTAC
TACAGGACAATTGAGGAGCTGCAGAACAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACAGATT
GACAATGCCCCGTCTGGCTGCTGATGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGCGCCTGAGTGTGGAG
GCCGACATCAATGGCCTGCGCAGGGTGCTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCAGATTGAG
AACCTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCTGCGAGGCCAGGTGGGT
GGTGAGATCAATGTGGAGATGGACGCTGCCCCAGGCGTGACCTGAGCCGCATCCTCAACGAGATGCGTGACCAG
TATGAGAAGATGGCAGAGAAGAACC GCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAACTGAACCGC
GAGGTGGCCACCAACAGTGAGCTGGTGCAGAGTGGCAAGAGTGAGATCTCGGAGCTCCGGCGCACCATGCAGGCC
TTGGAGATAGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGC
TACTGCGTGCACTGTCCCAGATCCAGGGGCTGATTGGCAGCGTGGAGGAGCAGCTGGCCCAGCTTCGCTGCGAG
ATGGAGCAGCAGAACCAGGAATACAAAATCCTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTAC
CGCCGCTGCTGGAGGGAGAGGATGCCACCTGACTCAGTACAAGAAAGAACC GGTGACCACCCGTCAGGTGCGT
ACCATTGTGGAAGAGGTCCAGGATGGCAAGGTATCTCCTCCCGCGAGCAGGTCCACCAGACCACCCGCTAGAGGA
CTCAGCTACCCCGGCCGGCCACCCAGGAGGCAGGGAGCAGCCGCCCATCTGCCCCACAGTCTCCGGCCTCTCCA
GCCTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCTTGCTGATGACAATAAAGCTTGTTGACTCAGCTAAA
AAAAAAAAAAAA

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FIGURE 4808

MTTSIRQFTSSSSSIKSSGLGGSSRTSCRLSGGLGAGSCRLGSAGGLGSTLGGSSYSSCYSGSGGGYGSSFGG
VDGLLAGGEKATMQNLNDRLASYLDKVRALEEANTELEVKIRDWYQRQAPGPARDYSQYYRTIEELQNKILTATV
DNANILLQIDNARLAADDFTKFEQALRLSVEADINGLRRVLDELTLARADLEMQIENLKEELAYLKKNHEEE
MNALRGQVGGEINVEDAAPGVDLNEMRDQYEKMAEKNRKAEDWFFSKTEELNREVATNSELVQSGKSEI
SELRRMQALEIELQSQLSMKASLEGNLAETENRYCVQLSQIQGLIGSVEEQLAQLRCEMEQQNQEYKILLDVKT
RLEQEIATYRRLLEGEDAHLTQYKKEPVTTRQVRTIVEEVQDGKVISSREQVHQTTTR

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FIGURE 4809

ATGACCACCTGCAGCCGCCAGTTACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGAGGCGGCATCGGG
GGCGGCTCCAGCCGCATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGTGCCCCAGCACCTACGGGGGCGGCCCTG
TCTGTCTCCTCTCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGC
AGCAGCTTTGGTAGTGGCTTCGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTCGGTGGTGGCTTGGGTGCT
GGCTTTGGTGGTGGTTTTGCTGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAAT
GACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGT
GACTGGTACCAGAGGCAGCGGCCCCAGTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATCGAGGACCTGAGG
AACAAGATCATTGCGGCCACCATTGAGAATGCGCAGCCCATTTTGAGATTGACAATGCCAGGCTGGCAGCCGAT
GACTTCAGGACCAAGTATGAGCACGAAGTGGCCCTGCGGCAGACTGTGGAGGCCGACGTCAATGGCCTGCGCCGG
GTGTTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGATCGAAGGCCTGAAGGAGGAGCTGGCCTAC
CTGAGGAAGAACCACGAGGAGGAGATGCTTGCTCTGAGAGGTGAGACCGCGGAGATGTGAACGTGGAGATGGAT
GCTGCACCTGGCGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGACCAGTACGAGCAGATGGCAGAGAAAAAC
CGCAGAGACGCTGAGACCTGGTTCTGAGCAAGACCGAGGAGCTGAACAAAGAAGTGGCCTCCAACAGCGAACTG
GTACAGAGCAGCCGCGAGTGAGGTGACGGAGCTCCGGAGGGTGCTCCAGGGCCTGGAGATTGAGCTGCAGTCCCAG
CTCAGCATGAAAGCATCCCTGGGAGAACAGCCTGGAGGAGACCAAAGGCCGCTACTGCATGCAGCTGTCCCAGATC
CAGGGACTGATTGGCAGTGTGGAGGAGCAGCTGGCCCAGCTACGCTGTGAGATGGAGCAGCAGAGCCAGGAGTAC
CAGATCTTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTACCGCCGCCTGCTGGAGGGCGAGGAT
GCCCACCTTTCTCCAGCAAGCATCTGGCCAATCCTATTCTTCCCGCGAGGTCTTACCTCCTCCTCGTCCTCT
TCGAGCCGTCAGACCCGGCCCCATCCTCAAGGAGCAGAGCTCATCCAGCTTCAGCCAGGGCCAGAGCTCCTAG

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FIGURE 4810

CGGGGGTTGCTCCGTCCGTGCTCCGCCTCGCCATGACTTCCTACAGCTATCGCCAGTCGTCGGCCACGTCGTCCT
TCGGAGGCCTGGGCGGCGGCTCCGTGCGTTTTGGGCCGGGGGTCGCTTTTCGCGCGCCCAGCATTCACGGGGGCT
CCGGCGGCGCGGGCGTATCCGTGTCCTCCGCCCGCTTTGTGTCTCGTCCTCCTCGGGGGGCTACGGCGGCGGCT
ACGGCGGCGTCTGACCGCGTCCGACGGGCTGCTGGCGGGCAACGAGAAGCTAACCATGCAGAACCTCAACGACC
GCCTGGCCTCCTACCTGGACAAGGTGCGCGCCCTGGAGGCGGCCAACGGCGAGCTAGAGGTGAAGATCCGCGACT
GGTACCAGAAGCAGGGGCTGGGCCCTCCCGCGACTACAGCCACTACTACACGACCATCCAGGACCTGCGGGACA
AGATTCTTGGTGCCACCATTGAGAACTCCAGGATTGTCTGCGAGATCGACAACGCCCGTCTGGCTGCAGATGACT
TCCGAACCAAGTTTGAGACGGAACAGGCTCTGCGCATGAGCGTGGAGGCCGACATCAACGGCCTGCGCAGGGTGC
TGGATGAGCTGACCCTGGCCAGGACCGACCTGGAGATGCAGATCGAAGGCCTGAAGGAAGAGCTGGCCTACCTGA
AGAAGAACCATGAGGAGGAAATCAGTACGCTGAGGGGCCAAGTGGGAGGCCAGGTGAGTGTGGAGGTGGATTCCG
CTCCGGGCACCGATCTCGCCAAGATCCTGAGTGACATGCGAAGCCAATATGAGGTCATGGCCGAGCAGAACC
AGGATGCTGAAGCCTGGTTTACCAGCCGACTGAAGAATTGAACCGGGAGGTGCTGGCCACACGGAGCAGCTCC
AGATGAGCAGGTCCGAGGTTACTGACCTGCGGCGCACCCCTTCAGGGTCTTGAGATTGAGCTGCAGTCACAGCTGA
GCATGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGCCCAGCTGGCGCATATCCAGG
CGCTGATCAGCGGTATTGAAGCCCAGCTGGCGGATGTGCGAGCTGATAGTGAGCGGCAGAAATCAGGAGTACCAGC
GGCTCATGGACATCAAGTCGCGGCTGGAGCAGGAGATTGCCACCTACCGCAGCCTGCTCGAGGGACAGGAAGATC
ACTACAACAATTTGTCTGCCTCCAAGGTCCTCTGAGGCGAGCAGGCTCTGGGGCTTCTGCTGTCTTTGGAGGGTG
TCTTCTGGGTAGAGGGATGGGAAGGAAGGGACCCTTACCCCCGGCTCTTCTCCTGACCTGCCAATAAAAAATTTAT
GGTCCAAGGG

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FIGURE 4811

MTSYSYRQSSATSSFGGLGGGSVRFPGVAFRAPS IHGGSGGRGVS SVSSARFVSSSSSGGYGGGYGGVLTASDGL
LAGNEKLTMQN LNDRLASYLDKVRAL EAANGELEV KIRDWYQKQGPGPSRDYSHYYTTIQDLRDKILGATIENSR
IVLQIDNARLAADDFRTKFETE QALRMSVEADINGLRRVLDELT LARTDLEMQIEGLKEELAYLKKNHEEEISTL
RGQVGGQVSVEVDSAPGTDLAKILSDMRSQYEVMAEQNRKDAEAWFTSRTEELNREVAGHTEQLQMSRSEVTDLR
RTLQGLEIELSQLSMKAALEDTLAETEARFGAQLAHIQALISGIEAQLADVRADSERQNQEYQRLMDIKSRLEQ
EIATYRSLLLEGQEDHYNNLSASKVL

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FIGURE 4812

GGTACCTCCTGCCAGCACCTCTTGGGTTTGCTGAGAACTCACGGGCTCCAGCTACCTGGCCATGACCACCACATT
TCTGCAAACITTTCTTCCCTCCACCTTTGGGGGTGGCTCAACCCGAGGGGGTTCCCTCCTGGCTGGGGGAGGTGGCTT
TGGTGGGGGGGAGTCTCTCTGGGGGAGGTGGAAGCCGAAGTATCTCAGCTTCTTCTGCTAGGTTTGTCTCTTCAGG
GTCAGGAGGAGGATATGGGGGTGGCATGAGGGTCTGTGGCTTTGGTGGAGGGGCTGGTAGTGTTTTCGGTGGAGG
CTTTGGAGGGGGCGTTGGTGGGGGTTTTGGTGGTGGCTTTGGTGGTGGCGATGGTGGTCTCCTCTCTGGCAATGA
GAAAATTACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTACGTGCCCTGGAGGAGGCCAA
TGCTGACCTGGAGGTGAAGATCCATGACTGGTACCAGAAGCAGACCCAGCCAGCCCAGAATGCGACTACAGCCA
ATACTTCAAGACCATTGAAGAGCTCCGGGACAAGATCATGGCCACCACCATCGACAACCTCCCGGGTCATCCTGGA
GATCGACAATGCCAGGCTGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGGGCGT
TGAGGCTGACATCAACGGCTTGCGCCGAGTCTGGATGAGCTGACCTGGCCAGGACTGACCTGGAGATGCAGAT
CGAGGGCCTGAATGAGGAGCTAGCCTACCTGAAGAAGAACCACGAAGAGGAGATGAAGGAGTTCAGCAGCCAGCT
GGCCGGCCAGGTCAATGTGGAGATGGACGCAGCACCGGGTGTGGACCTGACCCGTGTGCTGGCAGAGATGAGGGA
GCAGTACGAGGGCCATGGCGGAGAAGAACCGCCGGGATGTGAGGCCTGGTTCTTCAGCAAGACTGAGGAGCTGAA
CAAAGAGGTGGCCTCCAACACAGAAATGATCCAGACCAGCAAGACGGAGATCACAGACCTGAGACGCACGATGCA
GGAGCTGGAGATCGAGCTGCAGTCCAGCTCAGCATGAAAGCTGGGCTGGAGAACTCACTGGCCGAGACAGAGTG
CCGCTATGCCACGCAGCTGCAGCAGATCCAGGGGCTCATTGGTGGCCTGGAGGGCCAGCTGAGTGAGCTCCGATG
CGAGATGGAGGCTCAGAACCAGGAGTACAAGATGCTGCTTGACATAAAGACACGGCTGGAGCAGGAGATCGCTAC
TTACCGCAGCCTGCTCGAGGGCCAGGATGCCAAGATGGCTGGCATTGGCATCAGGGAAGCCTCTTCAGGAGGTGG
TGGTAGCAGCAGCAATTTCCACATCAATGTAGAAGAGTCAGTGGATGGACAGGTGGTTTCTTCCCACAAGAGAGA
AATCTAAAGTGCTCTATTGCAGGAGAAACGTCCCTTGCCACTCCCCACTCTCATCAGGCCAAGTGGAGGACTGGCCA
GAGGGCCTGCACATGCAAACCTCCAGTCCCTGCCTTCAGAGAGCTGAAAAGGGTCCCTCGGTCTTTTATTTAGGG
CTTTGCATGCGCTCTATTCCCCCTCTGCCTCTCCCCACCTTCTTTGGAGCAAGGAGATGCAGCTGTATTGTGTAA
CAAGCTCATTTGTACAGTGTCTGTTTCATGTAATAAAGAATTACTTTTCCTTTTGCAAAT

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FIGURE 4813

MTTFLQTSSSTFGGGSTRGGSLLAGGGGFGGGSLSGGGGSRSISASSARFVSSGSGGGYGGGMRVCGFGGGAGS
VFGGGFGGGVGGGFGGGFGGGDGGLLSGNEKITMQNLNDRLASYLDKVRALEEANADLEVKIHDWYQKQTPASPE
CDYSQYFKTIEELRDKIMATTIDNSRVILEIDNARLAADDFFRLKYENELALRQGV EADINGLRRVLDELTLARTD
LEMQIEGLNEELAYLKKNHEEMKEFSSQLAGQVNVEMDAAPGVDLTRVLAEMREQYEAMAENRRDVEAWFFSK
TEELNKEVASNTEMIQTSKTEITDLRRITMQELEIELQSLSMKAGLENSLAETECRYATQLQQIQGLIGGLEAQL
SELRCMEAQNQEFYKMLLDIKTRLEQEIATYRSLLLEGQDAKMAGIGIREASSGGGGSSSNFHINVEESVDGQVVS
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FIGURE 4814

GGCCAAGCAAGCTTCTATCTGCACCTGCTCTCAATCCTGCTCTCACCATGAGCCTCCGCCTGCAGAGCTCCTCTG
CCAGCTATGGAGGTGGTTTTCGGGGGTGGCTCTTGCCAGCTGGGAGGAGGCCGTGGTGTCTCTACCTGTTCAACTC
GGTTTGTGTCTGGGGGATCAGCTGGGGGCTATGGAGGCGGCGTGAGCTGTGGTTTTGGTGGAGGGGCTGGTAGTG
GCTTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTTTGGTGGGGGTT
TTGCTGGTGGCTTTGTTGACTTTGGTGTCTGTGATGGCGGCCTCCTCACTGGCAATGAGAAGATCACCATGCAGA
ACCTCAACGACCGCCTGGCTTTCCTACCTGGAGAAGGTGCGCGCCCTGGAGGAGGCCAACGCTGACCTGGAGGTGA
AGATCCGTGACTGGCACCTGAAGCAGAGCCCAGCTAGCCCTGAGCGGGACTACAGCCCCTACTACAAGACCATTG
AAGAGCTCCGGGACAAGATCCTGACCGCCACCATTGAAAACAACCGGGTCATCCTGGAGATTGACAATGCCAGGC
TGGCTGTGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGAGCGTGGAGGCCGACATCAACG
GCCTGCGCCGGGTGCTGGATGAGCTCACTCTGTCTAAGACTGACCTGGAGATGCAGATCGAGAGCCTGAATGAAG
AGCTAGCCTACATGAAGAAGAACCATGAAGAGGAGATGAAGGAATTTAGCAACCAGGTGGTCGGCCAGGTCAACG
TGGAGATGGATGCCACCCCAGGCATTGACCTGACCCGCGTGCTGGCAGAGATGAGGGAGCAGTACGAGGCCATGG
CAGAGAGGAACCGCCGGGATGCTGAGGAATGGTTCCACGCCAAGAGTGCAGAGCTGAACAAGGAGGTGTCTACCA
ACACTGCCATGATTGAGACCAGCAAGACAGAGATCACGGAGCTCAGGCGCACGCTCCAAGGCCTGGAGATTGAGC
TGCAGTCCCAGCTGAGCATGAAAGCGGGGCTGGAGAACACGGTGGCAGAGACGGAGTGCCGCTATGCCCTGCAGC
TGCAGCAGATCCAGGGACTCATCAGCAGCATCGAGGCCAGCTGAGCGAGCTCCGCAGTGAGATGGAGTGCCAGA
ACCAAGAGTACAAGATGCTGCTGGACATCAAGACACGTCTGGAGCAGGAGATCGCCACCTACCGCAGCCTGCTCG
AGGGCCAGGACGCCAAGAAGCGTCAGCCCCCGTAGCACCTCTGTTACCACGACTTCTAGTGCCTCTGTTACCACC
ACCTCTAATGCCTCTGGTGCCTGCACTTCTGATGTCCGTAGGCCTTAAATCTGCCTGGCGTCCCCTCCCCTCTGTC
TTCAGCACCCAGAGGAGGAGAGAGCCGGCAGTTCCTGTCAGGAGAGAGGAGGGGCTGCTGGACCCAAGGCTCAGT
CCCTCTGCTCTCAGGACCCCCTGTCTGACTCTCTCCTGATGGTGGGCCCTCTGTGCTCTTCTCTTCCGGTCGGA
TCTCTCTCCTCTCTGACCTGGATACGCTTTGGTTTTCTCAACTTCTCTACCCCAAAGAAAAGATTATTCAATAAAG
TTTCTGCCTTTCTGCAACATAAAAA

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FIGURE 4815

MSLRLQSSSASYGGGFGGGSCQLGGGRGVSTCSTRFVSGGSAGGYGGGVSCGFGGGAGSGFGGGYGGGLGGGYGG
GLGGGFGGGFAGGFVDFGACDGGLLTGNEKITMQNLNDRLASYLEKVRALEEANADLEVKIRDWHLKQSPASPER
DYSPYYKTIEELRDKILTATIENNRVILEIDNARLAVDDFRLKYENELALRQSVEADINGLRRVLDELTLTKTDL
EMQIESLNEELAYMKKNHEEEMKEFSNQVVGQVNVEMDATPGIDLTRVLAEMREQYEAMAERNRRDAEEWFHAKS
AELNKEVSTNTAMIQTSKTEITELRRTLQGLEIELQSQLSMKAGLENTVAETECRYALQLQQIQGLISSIEAQLS
ELRSEMECQNQEYKMLLDIKTRLEQEIATYRSLLEGQDAKKRQPP

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FIGURE 4816

ACCCGAGCACCTTCTCTTCACTCAGCCAACTGCTCGCTCGCTCACCTCCCTCCTCTGCACCATGACTACCTGCAG
CCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGGGGCGGCATCGGGGGCGGCTCCAGCCG
CATCTCCTCCGTCTCTGGCCGGAGGGTCCTGCCGCGCCCCAGCACCTACGGGGGCGGCCTGTCTGTCTCATCCTC
CCGCTTCTCCTCTGGGGGAGCCTACGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGCAGCAGCAGCTT
TGGTAGTGGCTTTGGGGGAGGATATGGTGGTGGCCTTGGTGTGGCTTGGGTGGTGGCTTTGGTGGTGGCTTTGC
TGGTGGTGTATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCT
GGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGTGACTGGTACCAGAGGCAGCG
GCCTGCTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATTGAGGACCTGAGGAACAAGATTCTCACAGCCAC
AGTGGACAATGCCAATGTCCTTCTGCAGATTGACAATGCCCGTCTGGCCGCGGATGACTTCCGCACCAAGTATGA
GACAGAGTTGAACCTGCGCATGAGTGTGGAAGCCGACATCAATGGCCTGCGCAGGGTGTGGACGAACTGACCTT
GGCCAGAGCTGACCTGGAGATGCAGATTGAGAGCCTGAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGA
GGAGATGAATGCCCTGAGAGGCCAGGTGGGTGGAGATGTCAATGTGGAGATGGACGCTGCACCTGGCGTGGACCT
GAGCCGCATTCTGAACGAGATGCGTGACCAAGTATGAGAAGATGGCAGAGAAGAACCAGCAAGGATGCCGAGGAATG
GTTCTTACCAAGACAGAGGAGCTGAACCGCGAGGTGGCCACCAACAGCGAGCTGGTGCAGAGCGGCAAGAGCGA
GATCTCGGAGCTCCGGCGCACCATGCAGAACCTGGAGATTGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCT
GGAGAACAGCCTGGAGGAGACCAAAGGTGCTACTGCATGCAGCTGGCCCAGATCCAGGAGATGATTGGCAGCGT
GGAGGAGCAGCTGGCCCAGCTCCGCTGCGAGATGGAGCAGCAGAACCAGGAGTACAAGATCCTGCTGGACGTGAA
GACGCGGCTGGAGCAGGAGATCGCCACCTACCGCCGCCTGCTGGAGGGCGAGGACGCCACCTCTCCTCCTCCCA
GTTCTCCTCTGGATCGCAGTCATCCAGAGATGTGACCTCCTCCAGCCGCCAAATCCGCACCAAGGTGATGGATGT
GCACGATGGCAAGGTGGTGTCCACCCACGAGCAGGTCTTTCGCACCAAGAACTGAGGCTGCCAGCCCCGCTCAG
GCCTAGGAGGCCCCCGTGTGGACACAGATCCCCTGGAAGATCCCCTCTCCTGCCCAAGCACTTCACAGCTGGA
CCCTGCTTCACCTCACCCCTCCTGGCAATCAATACAGCTTCATTATCTGAGTTGCAT

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FIGURE 4817

MTTCSRQFTSSSSMKGSCGIGGGIGGGSSRISSVLAGGSCRAPSTYGGGLSVSSSRFSSGGAYGLGGGYGGGFSS
SSSSFGSGFGGGYGGGLGAGLGGGFGGGFAGGDGLLVGSEKVTMQNLNDRLASYLDKVRALEEANADLEVKIRDW
YQRQRP AEIKDYSPYFKTIEDLRNKILTATVDNANVLLQIDNARLAADDFRTKYETELNLRMSVEADINGLRRVL
DELTARADLEMQIESLKEELAYLKKNHEEEMNALRGQVGGDVNVEMDAAPGVDLSRILNEMRDQYEKMAEKNRK
DAEEWFFTKTEELNREVATNSELVQSGKSEISELRRTMQNLEIELQSQLSMKASLENSLEETKGRYCMQLAQIQE
MIGSVEEQLAQLRCEMEQQNQEYKILLDVKTRLEQEIATYRRLLEGEDAHLSSSQFSSGSQSSRDVTSSSRQIRT
KVMDVHDGKVVSTHEQVLRITKN

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FIGURE 4818

AGCCCCCTGCCCTCGCCGCCCGCCGCTGCCTGGGCCGGGCCGAGGATGCGGCGCAGCGCCTCGGCGGCCAGGC
TTGCTCCCCCTCCGGCAGGCCTGCTAACTTCCCCCGCTACGTCCCCGTTGCCCCGCCGGGCCGCCCCGTCTCCCCG
CGCCCTCCGGGTTCGGGTCTCCAGGAGCGCCAGGCGCTGCCGCCGTGTGCCCTCCGCCGCTCGCCCGCGCGCCCCG
CGCTCCCCCGCTGCGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTTCATGCTGCCCCCTGCTGCTCGTGG
CCGCCCTGCTGCTGGCCGCCGGGCCCGGGCCGAGCCTGGGCGACGAAGCCATCCACTGCCCGCCCTGCTCCGAGG
AGAAGCTGGCGCGCTGCCGCCCGCCCGTGGGCTGCGAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCA
CTTGCGCCCTGGGCTTGGGGATGCCCTGCGGGGTGTACACCCCCGTTGCGGCTCGGGCCTGCGCTGCTACCCGC
CCCAGGGGTGGAGAAGCCCTGCACACACTGATGCACGGGCAAGGCGTGTGCATGGAGCTGGCGGAGATCGAGG
CCATCCAGGAAAGCCTGCAGCCCTCTGACAAGGACGAGGGTGACCACCCCAACAACAGCTTCAGCCCCCTGTAGCG
CCCATGACCGCAGGTGCCTGCAGAAGCACTTCGCCAAAATTGAGACCGGAGCACCAGTGGGGGCAAGATGAAGG
TCAATGGGGCGCCCCGGGAGGATGCCCCGGCTGTGCCCCAGGGCTCCTGCCAGAGCGAGCTGCACCGGCGCTGG
AGCGGCTGGCCGCTTCACAGAGCCGCACCCACGAGGACCTCTACATCATCCCCATCCCCAACTGCGACCGCAACG
GCAACTTCCACCCCAAGCAGTGTACCCAGCTCTGGATGGGCAGCGTGGCAAGTGTGTTGTTGGACCGGAAGA
CGGGGGTGAAGCTTCCGGGGGGCCTGGAGCCAAAGGGGGAGCTGGACTGCCACCAGCTGGCTGACAGCTTTCGAG
AGTGAGGCCTGCCAGCAGGCCAGGGACTCAGCGTCCCCTGCTACTCCTGTGCTCTGGAGGCTGCAGAGCTGACCC
AGAGTGGAGTCTGAGTCTGAGTCTGTCTCTGCCTGCGGCCAGAAAGTTTCCCTCAAATGCGCGTGTGCACGTGT
GCGTGTGCGTGCCTGT
TTGGTGTACACAGCCCAAGAGGACTGAGACTGGCACTTAGCCCAAGAGGTCTGAGCCCTGGTGTGTGTTCAGAT
CGATCCTGGATTCACTCACTCACTCATTCTTCACTCATCCAGCCACCTAAAAACATTTACTGACCATGTACTAC
GTGCCAGCTCTAGTTTTTCAGCCTTGGGAGGTTTTATTCTGACTTCCTCTGATTTTGGCATGTGGAGACACTCCTA
TAAGGAGAGTTCAAGCCTGTGGGAGTAGAAAAATCTCATTCCCAGAGTCAGAGGAGAAGAGACATGTACCTTGAC
CATCGTCCTTCTCTCAAGCTAGCCAGAGGGTGGGAGCCTAAGGAAGCGTGGGGTAGCAGATGGAGTAATGGTCA
CGAGGTCCAGACCCACTCCCAAGCTCAGACTTGCCAGGCTCCCTTTCTCTTCTTCCCCAGGTCTTCTTTTAGG
TCTGGTTGTTGCACCATCTGCTTGGTTGGCTGGCAGCTGAGAGCCCTGCTGTGGGAGAGCGAAGGGGGTCAAAGG
AAGACTTGAAGCACAGAGGGCTAGGGAGGTGGGGTACATTTCTCTGAGCAGTCAGGGTGGGAAGAAAGAATGCAA
GAGTGGACTGAATGTGCCTAATGGAGAAGACCCACGTGCTAGGGGATGAGGGGCTTCTTGGGTCTGTTCCCTAC
CCATTTGTGGTCACAGCCATGAAGTCACCGGGATGAACCTATCCTTCCAGTGGCTCGCTCCCTGTAGCTCTGCC
TCCCTCTCCATACTCCTTCCCTACACCTCCCTCCCCACACCTCCCTACTCCCTGGGCATCTTCTGGCTTGAC
TGGATGGAAGGAGACTTAGGAACCTACCAGTTGGCCATGATGTCTTTTCTT

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FIGURE 4819A

CCCTTCACGACCGTCACCATGGAAGTGTACCATTTGCAGCCTGTAAATGAAAAATATGCAAGTCAACAAAATAAAG
AAAAATGAAGATGCTAAGAAAAGACTGTCTGTTGAAAGAATCTATCAAAAGAAAACACAATTGGAACATATTTTG
CTCCGCCAGACACCTACATTGGTTCTGTGGAATTAGTGACCCAGCAAATGTGGGTTTACGATGAAGATGTTGGC
ATTAACATATAGGGAAGTCACTTTTGTCTGTTGTACAAAATCTTTGATGAGATTCTAGTTAATGCTGCGGAC
AACAAACAAAGGGACCCAAAAATGTCCTTGTATTAGAGTCACAATTGATCCGAAAACAATTTAATTAGTATATGG
AATAATGGAAGGATTCTGTTGTTGAACACAAAGTTGAAAAGATGTATGTCCAGCTCTCATATTTGGACAG
CTCCTAACTTCTAGTAACATATGATGATGATGAAAAGAAAGTGACAGGTGGTGGAAATGGCTATGGAGCCAAATTG
TGTAACATATTCAGTACCAAAATTTACTGTGGAACAGCCAGTAGAGAATACAAGAAAATGTTCAAACAGACATGG
ATGGATAATATGGGAAGAGCTGGTGAGATGGAACCTCAAGCCCTTCAATGGAGAAGATTATACATGTATCACCTTT
CAGCCTGATTTGTCTAAGTTTAAAAATGCAAAGCCTGGACAAAGATATTGTTGCACTAATGGTCAGAAGAGCATAT
GATATTGCTGGATCCACCAAAGATGTCAAAGTCTTTCTTAATGGAAATAAACTGCCAGTAAAAGGATTTCGTAGT
TATGTGGACATGTATTTGAAGGACAAGTTGGATGAAACTGGTAACTCCTTGAAAGTAATACATGAACAAGTAAAC
CACAGGTGGGAAGTGTGTTTAACTATGAGTGAAAAGGCTTTTCAGCAAATTAGCTTTGTCAACAGCATTGCTACA
TCCAAGGGTGGCAGACATGTTGATTATGTAGCTGATCAGATTGTGACTAACTTGTGATGTTGTGAAGAAGAAG
AACAAAGGGTGGTGTGTCAGTAAAAGCACATCAGGTGAAAATCACATGTGGATTTTTGTAAATGCCTTAATTGAA
AACCCAACCTTTGACTCTCAGACAAAAGAAAACATGACTTTACAACCCAAGAGCTTTGGATCAACATGCCAATTG
AGTGAAAAATTTATCAAAGCTGCCATTGGCTGTGGTATTGTAGAAAGCATACTAACTGGGTGAAGTTAAGGCC
CAAGTCCAGTTAAACAAGAAAGTGTTCAGCTGTAAAACATAATAGAATCAAGGGAATTCCTCAAACCTCGATGATGCC
AATGATGCAGGGGGCCGAAACTCCACTGAGTGTACGCTTATCCTGACTGAGGGAGATTACGCCAAAACCTTGGCT
GTTTCAGGCCTTGGTGTGGTGGGAGAGACAAATATGGGGTTTTCCCTCTTAGAGGAAAAATACCTAATGTTTGA
GAAGCTTCTCATAAGCAGATCATGGAATGCTGAGATTAACAATATCATCAAGATTGTGGGTCTTCAGTACAAG
AAAACTATGAAGATGAAGATTCATTGAAGACGCTTCGTTATGGGAAGATAATGATTATGACAGATCAGGACCAA
GATGGTTCACATCAAAGGCTTGCTGATTAATTTATCCATCACAACCTGGCCCTCTCTTCTGCGACATCGTTTT
CTGGAGGAATTTATCACTCCCATTGTAAAGGTATCTAAAAACAAGCAAGAAATGGCATTTCACAGCCTTCCTGAA
TTTGAAGAGTGGAAGAGTTCTACTCCAAATCATAAAAAATGGAAAGTCAAATATTACAAAGGTTTGGGCACCAGC
ACATCAAAGGAAGCTAAAGAATACTTTGCAGATATGAAAAGACATCGTATCCAGTTCAAATATTCTGGTCTGAA
GATGATGCTGCTATCAGCCTGGCCTTTAGCAAAAAACAGATAGATGATCGAAAGGAATGGTTAACTAATTTTCATG
GAGGATAGAAGACAACGAAAGTTACTTGGGCTTCCTGAGGATTACTTGTATGGACAACTACCACATATCTGACA
TATAATGACTTCATCAACAAGGAACCTTATCTTGTCTCAAATCTGATAACGAGAGATCTATCCCTTCTATGGTG
GATGGTTTGAACACAGGTGAGAGAAAGGTTTTGTTTACTTGCCTCAAACGGAATGACAAGCGAGAAGTAAAGGT
GCCCCAATTAGCTGGATCAGTGGCTGAAATGTCTTCTTATCATCATGGTGAGATGTCACTAATGATGACCATTATC
AATTTGGCTCAGAATTTTGTGGGTAGCAATAATCTAAACCTCTTGACGCCATTGGTCAGTTTGGTACCAGGCTA
CATGGTGGCAAGGATTCTGCTAGTCCACGATACATCTTACAATGCTCAGCTCTTGGCTCGATTGTTATTTCCA
CCAAAAGATGATCACACGTTGAAGTTTTTATATGATGACAACCAGCGTGTGAGCCTGAATGGTACATTCTTATT
ATTCCCATGGTGCTGATAAATGGTGCTGAAGGAATCGGTACTGGGTGGTCTGCAAAATCCCCAACTTTGATGTG
CGTGAAATTGTAAATAACATCAGGCGTTTGATGGATGGAGAAGAACCTTTGCCAATGCTTCCAAGTTACAAGAAC
TTCAAGGGTACTATTGAAGAACTGGCTCCAAATCAATATGTGATTAGTGGTGAAGTAGCTATTCTTAATTCTACA
ACCATTGAAATCTCAGAGCTTCCCGTCAGAACATGGACCCAGACATACAAAGAACAAGTTCTAGAACCCATGTTG
AATGGCACCGAGAAGACACCTCCTCTCATAACAGACTATAGGGAATACCATACAGATACCACTGTGAAATTTGTT
GTGAAGATGACTGAAGAAAAACTGGCAGAGGCAGAGAGAGTTGGACTACACAAAGTCTTCAAACCTCAAACCTAGT
CTCACATGCAACTCTATGGTGCTTTTTGACACGCTAGGCTGTTTAAAGAAATATGACACGGTGTGGATATTCTA
AGAGACTTTTTTGAACCTCAGACTTAAATATTATGGATTAAGAAAAAGAAATGGCTCCTAGGAATGTTGGTGCTGAA
TCTGCTAAACTGAATAATCAGGCTCGCTTTTATCTTAGAGAAAAATAGATGGCAAAATAATCATTGAAAAATAAGCCT
AAGAAAGAATTAATTAAGTTCTGATTTCAGAGGGGATATGATTCCGATCCTGTGAAGGCCTGGAAAGAAGCCAG
CAAAAGGTTCCAGATGAAGAAGAAAAATGAAGAGAGTGACAACGAAAAGGAAACTGAAAAGAGTGACTCCGTAACA
GATTCTGGACCAACCTTCAACTATCTTCTTGATATGCCCTTTGGTATTTAACCAAGGAAAAGAAAGATGAAGTC
TGCAGGCTAAGAAATGAAAAAGAACAGAGCTGGACACATTAAAAAGAAAGAGTCCATCAGATTTGTGGAAAGAA
GACTTGGCTACATTTATTGAAGAATTGGAGGCTGTTGAAGCCAAGGAAAAACAAGATGAACAAGTCGGACTTCCT

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FIGURE 4819B

GGGAAAGGGGGGAAGGCCAAGGGGAAAAAACACAAATGGCTGAAGTTTTGCCTTCTCCGCGTGGTCAAAGAGTC
ATTCCACGAATAACCATAGAAATGAAAGCAGAGGCAGAAAAAGAAAAATAAAAAAGAAATTAAGAATGAAAAATACT
GAAGGAAGCCCTCAAGAAGATGGTGTGGAAGTAGAAGGCCTAAAACAAAGATTAGAAAAAGAAACAGAAAAAGAGAA
CCAGGTACAAAGACAAAGAAACAAACTACATTGGCATTAAAGCCAATCAAAAAAGGAAAGAAGAGAAATCCCTGG
TCTGATTGAGAATCAGATAGGAGCAGTGACGAAAGTAATTTTGATGTCCCTCCACGAGAAACAGAGCCACGGAGA
GCAGCAACAAAAACAAAATTCACAATGGATTTGGATTGAGATGAAGATTTCTCAGATTTTGATGAAAAAACTGAT
GATGAAGATTTTGTCCCATCAGATGCTAGTCCACCTAAGACCAAACTTCCCCAAAACCTTAGTAACAAAGAACTG
AAACCACAGAAAAGTGTCGTGTCAGACCTTGAAGCTGATGATGTTAAGGGCAGTGTACCACTGTCTTCAAGCCCT
CCTGCTACACATTTCCCAGATGAAACTGAAATTACAAACCCAGTTCTAAAAAGAATGTGACAGTGAAGAAGACA
GCAGCAAAAAGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAAGGGCTGCCCCAAAAGGAACTAAAAGGGAT
CCAGCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGAAAAGGAAGCCATCC
ACTTCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGAAATCCAAGGGGGAG
AGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAAATCTGTACGGGCAAGAAACCTATA
AAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAATGTGAGGCGATTATTTTAAGTAATTATCTTACCA
AGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACCTCCTCCCTCTGAATTTAGTTTGGGGAAGGTGTTT
TTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTCTTTAGCTTT

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FIGURE 4820

GCCATCTGGGCCCAGGCCCCATGCCCCGAGGAGGGGTGGTCTGAAGCCCACCAGAGCCCCCTGCCAGACTGTCTG
CCTCCCTTCTGACTGTGGCCGCTTGGCATGGCCAGCAACAGCAGCTCCTGCCCACACCTGGGGGCGGGCACCTC
AATGGGTACCCGGTGCCCTCCCTACGCCTTCTTCTTCCCCCTATGCTGGGTGGACTCTCCCGCCAGGCGCTCTG
ACCACTCTCCAGCACCAGCTTCCAGTTAGTGGATATAGCACACCATCCCCAGCCACCATTGAGACCCAGAGCAGC
AGTTCTGAAGAGATAGTGCCAGCCCTCCCTCGCCACCCCTCTACCCCGCATCTACAAGCCTTGCTTTGTCTGT
CAGGACAAGTCCTCAGGCTACCACTATGGGGTCAGCGCTGTGAGGGCTGCAAGGGCTTCTTCCGCCGCAGCATC
CAGAAGAACATGGTGTACACGTGTACCCGGGACAAGAAGTGCATCATCAACAAGGTGACCCGGAACCGCTGCCAG
TACTGCCGACTGCAGAAGTGCTTTGAAGTGGGCATGTCCAAGGAGTCTGTGAGAAACGACCGAAACAAGAAGAAG
AAGGAGGTGCCCAAGCCCGAGTGCTCTGAGAGCTACACGCTGACGCCGAGGTGGGGGAGCTCATTGAGAAGGTG
CGCAAAGCGCACCAAGAAACCTTCCCTGCCCTCTGCCAGCTGGGCAAATACACTACGAACAACAGCTCAGAACAA
CGTGTCTCTCTGGACATTGACCTCTGGGACAAGTTCAGTGAAGTCTCCACCAAGTGCATCATTAAAGACTGTGGAG
TTCGCCAAGCAGCTGCCCCGGCTTACCACCCCTACCATCGCCGACCAGATCACCTCCTCAAGGCTGCCTGCCTG
GACATCCTGATCCTGCGGATCTGCACGCGGTACACGCCCGAGCAGGACACCATGACCTTCTCGGACGGGCTGACC
CTGAACCGGACCCAGATGCACAACGCTGGCTTCCGCCCCCTCACCGACCTGGTCTTTGCCTTCGCCAACCAGCTG
CTGCCCCCTGGAGATGGATGATGCGGAGACGGGGCTGCTCAGCGCCATCTGCCTCATCTGCGGAGACCGCCAGGAC
CTGGAGCAGCCGGACCGGGTGGACATGCTGCAGGAGCCGCTGCTGGAGGCGCTAAAGGTCTACGTGCGGAAGCGG
AGGCCCAGCCGCCCCACATGTTCCCCAAGATGCTAATGAAGATTACTGACCTGCGAAGCATCAGCGCCAAGGGG
GCTGAGCGGGTGATCAGCTGAAGATGGAGATCCCGGGCTCCATGCCGCCTCTCATCCAGGAAATGTTGGAGAAC
TCAGAGGGCCTGGACACTCTGAGCGGACAGCCGGGGGGTGGGGGGCGGGACGGGGGTGGCCCTGGCCCCCCGCCA
GGCAGCTGTAGCCCCAGCCTCAGCCCCAGCTCCAACAGAAGCAGCCCGGCCACCCACTCCCCGTGACCGCCACG
CCACATGGACACAGCCCTCGCCCTCCGCCCGGGCTTTTCTCTGCCTTTCTACCGACCATGTGACCCCGCACCCAGC
CCTGCCCCACCTGCCCTCCCGGGCAGTACTGGGGACCTTCCCTGGGGGACGGGGAGGGAGGAGGCAGCGACTCC
TTGGACAGAGGCCTGGGCCCTCAGTGGACTGCCTGCTCCACAGCCTGGGCTGACGTGAGGCGGAGGCCAGGA
ACTGAGTGAGGCCCCCTGGTCTTGGTCTCAGGATGGGTCTGGGGGCCTCGTGTTCATCAAGACACCCCTCTGCC
CAGCTCACCACATCTTCATCACCAGCAAACGCCAGGACTTGGCTCCCCATCCTCAGAACTCACAAGCCATTGCT
CCCCAGCTGGGGAAACCTCAACCTCCCCCTGCCTCGGTTGGTGACAGAGGGGGTGGGACAGGGGCGGGGGGTTC
CCCTGTACATACCCTGCCATACCAACCCCAGGTATTAATTCTCGCTGGTTTTGTTTTTATTTTAAATTTTTTGT
TTGATTTTTTTAATAAGAATTTTCATTTTAAGCACATTTATACTGAAGGAATTTGTGCTGTGTATTGGGGGAGC
TGGATCCAGAGCTGGAGGGGGTGGTCCGGGGGAGGGAGTGGCTCGGAAGGGGCCCCACTCTCCTTTCATGTCC
CTGTGCCCCCAGTTCTCCTCCTCAGCCTTTTCTCCTCAGTTTTCTCTTTAAACTGTGAAGTACTAACTTTCC
AAGGCCTGCCTTCCCTCCCTCCCACTGGAGAAGCCGCGACCCCTTTCTCCCTCTGCCTGACCACTGGGTGTGG
ACGGTGTGGGGCAGCCCTGAAAGGACAGGCTCCTGGCCTTGGCACTTGCCTGCACCCACCATGAGGCATGGAGCA
GGGCAGAGCAAGGGCCCCCGGACAGAGTTTTCCAGACCTGGCTCCTCGGCAGAGCTGCCTCCCGTCAGGGCCCA
CATCATCTAGGCTCCCCAGCCCCACTGTGAAGGGGCTGGCCAGGGGCGGAGCTGCCCCACCCCCGGCCTCAG
CCACCAGCACCCCCATAGGGCCCCCAGACACCACACACATGCGCGTGCGCACACACACAAACACACACACTGG
ACAGTAGATGGGCGACACACACTTGGCCGAGTTCCTCCATTTCCCTGGCCTGCCCCCACCCTAACCTGTCC
CACCCCCGTGCCCCCTCCTTACCCCGCAGGACGGGCCTACAGGGGGGTCTCCCTCACCCCTGCACCCCCAGCTG
GGGGAGCTGGCTCTGCCCCGACCTCCTTACCAGGGGTTGGGGCCCTTCCCTGGAGCCCGTGGGTGCACCTGT
TACTGTTGGGCTTTCCACTGAGATCTACTGGATAAAGAATAAAGTTCTATTTATTCT

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FIGURE 4821

MASNSSSCPTPGGGHLNGYPVPPYAFFFPMLGGLSPPGALTTLQHQLPVSGYSTPSPATIENTQSSSSEEIVPSP
PSPPLPRIYKPCFVCQDKSSGYHYGVSACEGCKGFFRRSIQKNMVYTCHRDKNCIINKVTRNRCQYCRLOKCFE
VGMSKESVRNDRNKKKKEVPKPECSESYTLTPEVGELIEKVRKAHQETFPALCQLGKYTTNNSSEQRVSLDIDLW
DKFSELSTKCIIKTVEFAKQLPGFTTLTIADQITLLKAACLDILILRICTRYTPEQDTMTFSDGLTLNRTQMHNA
GFGPLTDLVFANQLLPLEMDDAETGLLSAICLICGDRQDLEQPDRVDMLQEPLLEALKVYVRKRRPSRPHMFP
KMLMKITDLRSISAKGAERVITLKMEIPGSMPLIQEMLENSEGLDTLSGQPGGGGRDGGGLAPPPGSCSPSLSP
SSNRSSPATHSP

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FIGURE 4822

GCGCGGCGGGGCATGGCTCGGGTGGCGTGGGGGCTGCTGTGGTTGCTGCTGGGCAGCGCCGGGGCGCAGTACGAGA
AGTACAGCTTCCGGGGCTTCCCGCCGAGGACCTGATGCCGCTGGCCGCGGGCGTACGGGCACGCTCTGGAGCAGT
ACGAGGGAGAGAGCTGGCGCGAGAGCGCGCGCTACCTGGAGGCGGGCGCTGCGGGCTGCACCGGCTCCTGCGCGACA
GCGAGGCCTTCTGCCACGCCAACTGCAGCGGGCCCCGCGCCCCGCGGCCAAGCCCCGATCCCCACGGCGGGCCGCGCAG
ACGAGTGGGCCTGCGAGCTGCGGGCTCTTCGGCCGCGCTCTGGAGCGAGCCGCTGCGCTGCGGGCGCTGCAAGCGGA
CGCTGCCCCGCTTCCAGGTGCCCTACCCGCCGCGGCAGCTGCTGCGTGACTTCCAGAGCCGCTGCCCTACCAGT
ACCTGCACTACGCGCTGTTCAAGGCTAACC GGCTGGAGAAGGCGGTGGCGGGCGGCCTACACCTTCCTCCAGAGGA
ACCCGAAGCACGAGCTGACCGCCAAGTATCTCAACTACTATCAGGGGATGCTGGACGTCGCCGACGAGTCCCTCA
CGGACCTAGAGGCCCAGCCCTACGAGGCCGTGTTCTCCGGGCTGTGAAGCTCTACAACAGCGGGGATTTCCGCA
GCAGCACGGAGGACATGGAGCGGGCCTTGTCAGAGTACCTGGCAGTCTTTGCCCGGTGCCCTGGCCGGCTGTGAAG
GGGCCCATGAGCAGGTGGACTTCAAGGACTTCTACCCGGCCATAGCAGATCTCTTTGCAGAGTCCCTGCAGTGCA
AGGTGGACTGTGAGGCCAATTTGACCCCCAATGTGGGTGGCTACTTCGTGGACAAGTTTCGTGGCCACCATGTACC
ACTACCTGCAGTTTGCTACTATAAGTTGAATGATGTGCGCCAGGCTGCCCGCAGCGCCGCCAGCTACATGCTCT
TCGACCCCAAGGACAGCGTCATGCAGCAGAACCTGGTGTATTACCGGTTCCACCGGGCTCGCTGGGGCCTGGAAG
AGGAGGACTTCCAGCCCCGGGAGGAGGCCATGCTCTACCACAACCAGACCGCCGAGCTGCGGGAGCTGCTGGAGT
TCACCCACATGTACCTGCAGTCAGATGATGAGATGGAGCTGGAGGAGACAGAACCGCCCCCTGGAGCCTGAGGATG
CCCTATCTGACGCCGAGTTTGAGGGGGAGGGTGACTACGAGGAGGGCATGTATGCTGACTGGTGGCAGGAGCCGG
ATGCCAAGGGTGACGAGGCCGAGGCTGAGCCAGAGCCTGAACTCGCATGAGAAGGGGACACCCACACCGCTCAA
GCTTGGGAAGCCTGGTGCCGATGGCCCCACCCTCACCAGCCTGGGCAGCAGCAAGAACTATTTATTAAAACTTA
AGATGGGCCAGGTGCGGTGGCTCACACCTGTAATCCCAGCATTTTGGGAGGCCAAGGTGGGTGGATCACTTGAGG
CCAGGAGTTCAAGACCAGCCTGGCCAACATGATGAGACCTCCGTCTCTACTAAAATACATAAATTAGCCGGGTGT
GGTGGCAGGCGCCTGAAATCCCAGCTACTCAAGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCCAAGGT
TGCGGTGAACTGAGATTGCGCCACCGCACTCCAGCCTGGGCGACAGAGCGAGACTCCATCTTTAAAAAAAACAA
GACGGGCCGGCACGGTGGCTCACGCTGTAATCCCAGCACTGAGAGGCCGATCACTTGAGGTCAGGAGTTCAAGA
CCTGCTTGGCCAACATGGTGAAACCCCATCTCTACTAAAAAATACAAAAATTAGCCAGGCATGGTGGCACACACC
TGTAATCGTAGCTGAGGCAGGAGAATCGCCTGAACCCAGGAGCGGAGCTTGCAGTGAGCCGAGATCGTGCCACT
GCACTCCAGCCTGGGCGACAGAGTGAGACTCCATCTCAAAAAAATAAAAAAATAAAGATGGACACAGCTGA
CTGGACCCCCATCCTGCCTCACCCATGGGTGCTGCACCCAGACCCATCCTGCCACTTCTATGTCTCTGGACCAC
AGGATGGTGGTGGCAATTGCAGGTTGGCAAGTGGGCTGATGGGGTCCGCCCTCCTCACTGCTGAGCTCCTCACCTG
GACAGTCTCCTGGACAAGGAGTTTCCAGCTGCTGGCTGGAGTCTCAGGCCAAATTGCAGAGGGTCTCCAGGGTC
CTGAAGAGCACTGGACTAAGAGTCTAGTGGTTCCAGGGCCCTGACCAGTAGGTGCTCAATAAATGTTTGTGTTG
AATGAAAAAAAAAAAAAAAAAAAA

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FIGURE 4823

MARVAWGLLWLLLSAGAQYKYSFRGFPPEDLMPLAAAYGHAEQYEGESWRESARYLEAALRLHRLLRDSEAF
CHANCSPAPAAKPDGGRADWACELRLFGRVLERAACLRCKRTLPAFQVPYPPRQLLRDFQSRLPYQYLHY
ALFKANRLEKAVAAAYTFLQRNPKHELTAKYLNYYQGMLDVADES LTDLEAQPYEAVFLRAVKLYNSGDFRSSTE
DMERALSEYLAVFARCLAGCEGAHEQVDFKDFYPAIADLFAESLQCKVDCEANLTPNVGGYFVDK FVATMYHYLQ
FAYYKLNDVRQAARSAASYMLFDPKDSVMQONLVYYRFHRRARWGLEEDFQPREEAMLYHNQTAE LRELLEFTHM
YLQSDDEMELEETEPPLEPEDALSDAEFEGEGDYEEGMYADWWQEPDAKGDEAEAEPEPELA

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FIGURE 4824

TCTTTCGCGGGCACTTCGAATTCTAGTCCCCCTCCAGGCAGGAGCCCCGGGCCGACGGAGAGGACTTAACGACACTA
TCGGACCCTCTGGGAAAAGAGGGGAGACGTCGTGACCCAGGCCCCGCCCCACCTTGCCGCCTCGTGCCCGGCGCT
AAGACCCAGCGGGCGCGCCGCCCGGGGGCCCGGCCCTGTCCCCCTCCGTCCGCGGGGCAGCCAGCTCAGCTC
CGGAGAGCCGGCGGCGCGGGCATGGCTCGGGTGGCGTGGGGGCTGCTGTGGTTGCTGCTGGGCAGCGCCGGG
GCGCAGTACGAGAAGTACAGCTTCCGGGGCTTCCGCCCCAGGACCTGATGCCGCTGGCCGCGGCGTACGGGCAC
GCTCTGGAGCAGTACGAGGGAGAGAGCTGGCGCGAGAGCGCGCTACCTGGAGGCGGCGCTGCGGCTGCACCGG
CTCCTGCGCGACAGCGAGGCCTTCTGCCACGCCAACTGCAGCGGCCCCG

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FIGURE 4825

AGCTATGATCGCAACACCTTGGTGGCCATCGTGGTGGGTGTGGGGCGCCTCATCACTGGCATGGACCGAGGCCTC
ATGGGCATGTGTGTCAACGAGCGGCGACGCCTCATTGTGCCTCCCCACCTGGGCTATGGGAGCATCGGCCTGGCG
GGGCTCATTCCACOGGATGCCACCCTCTACTTCGATGTGGTTCTGCTGGATGTGTGGAACAAGGAAGACACCGTG
CAGGTGAGCACATTGCTGCGCCCCGCCCCACTGCCCCCGCATGGTCCAGGACGGCGACTTTGTCCGCTACCACTAC
AATGGCACCCCTGCTGGACGGCACCTCCTTCGACACCAGCTACAGTAAGGGCGGCACCTTATGACACCTACGTCGGC
TCTGGTTGGCTGATCAAGGGCATGGACCAGGGGCTGCTGGGCATGTGTCTGGAGAGAGAAGGAAGATTATCATC
CCTCCATTCTGGCCTATGGCGAGAAAGGCTATGGGACAGTGATCCCCCCACAGGCCTCGCTGGTCTTTACGTC
CTCCTGATTGACGTGCACAACCCGAAGGACGCTGTCCAGCTAGAGACGCTGGAGCTCCCCCGGGCTGTGTCCGC
AGAGCCGGGGCCGGGGACTTCATGCGCTACCACTACAATGGCTCCTTGATGGACGGCACCCCTCTTCGATTCCAGC
TACTCCCCGAACCACACCTACAATACCTATATCGGGCAGGGTTACATCATCCCCGGGATGGACCAGGGGCTGCAG
GGTGCCTGCATGGGGGAACGCCGGAGAATTACCATCCCCCGCACCTCGCCTATGGGGAGAATGGAAGTGGAGAC
AAGATCCCTGGCTCTGCCGTGCTAATCTTCAACGTCCATGTCAATTGACTTCCACAACCTGCGGATGTGGTGGAA
ATCAGGACACTGTCCCGCCATCTGAGACCTGCAATGAGACCACCAAGCTTGGGGACTTTGTTGATACCATTTAC
AACTGTTCTTTGCTGGACGGCACCCAGCTGTTACCTCGCATGACTACGGGGCCCCCAGGAGGCGACTCTCGGG
GCCAACAAGGTGATCGAAGGCCTGGACACGGGCCTGCAGGGCATGTGTGTGGGAGAGAGGGCGGCAGCTCATCGTG
CCCCCGCACCTGGCCACGGGGAGAGTGGAGCCCGGGGAGTCCAGGCAGTGCTGTGCTGCTGTTGAGGTGGAG
CTGGTGTCCCGGGAGGATGGGCTGCCCACAGGCTACCTGTTTGTGTGGCACAAGGACCCCTCCTGCCAACCTGTTT
GAAGACATGGACCTCAACAAGGATGGCGAGGTCCCTCCGGAGGAGTTCTCCACCTTCATCAAGGCTCAAGTGAGT
GAGGGCAAAGGACGCCTCATGCCTGGGCAGGACCTGAGAAAACCATAGGAGACATGTTCCAGAACCAGGACCGC
AACCAGGACGGCAAGATCACAGTCGACGAGCTCAAGCTGAAGTCAGATGAGGACGAGGAGCGGGTCCACGAGGAG
CTCTGAGGGGCAGGGAGCCTGGCCAGGCCTGAGACACAGAGGCCCACTGCGAGGGGGACAGTGGCGGTGGGACTG
ACCTGCTGACAGTCAACCTCCCTCTGCTGGGATGAGGTCCAGGAGCCAACTAAAACAATGGCAGAGGAGACATCT
CTGGTGTTCACCACCCCTAGATGAAAATCCACAGCACAGACCTCTACCGTGTTTCTCTTCCATCCCTAAACCAC
TTCCTTAAAATGTTTGGATTTGCAAAGCCAATTTGGGGCCTGTGGAGCCTGGGGTTGGATAGGGCCATGGCTGGT
CCCCACCATACCTCCCCCTCCACATCACTGACACAGCTGAGCTTGTTATCCATCTCCCCAACTTTCTCTTTCTT
TGTACTTCTTGTATCCCCACTCCCAGCCCCCTTTTCTCTATGTGACAGCTCCCTAGGACCCCTCTGCCTTCCTC
CCCAATCCTGACTGGCTCCTAGGGAAGGGGAAGGCTCCTGGAGGGCAGCCCTACCTCTCCCATGCCCTTTGCCCT
CCTCCCTCGCCTCCAGTGGAGGCTGAGCTGACCCTGGGCTGCTGGAGGCCAGACTGGGCTGTAGTTAGCTTTTCA
TCCCTAAAGAAGGCTCCTTTCCCTAAGGAACCATAGAAGAGAGGAAGAAAACAAGGGCATGTGTGAGGGAAGCT
GCTTGGGTGGGTGTTAGGGCTATGAAATCTTGGATTTGGGGCTGAGGGGTGGGAGGGAGGGCAGAGCTCTGCACA
CTCAAAGGCTAAACTGGTGTGAGTCCTTTTTTCTTTGTTCCAAATAAAAGATTAAACC

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FIGURE 4826

GGGATGGCAGAGGAGGTGAGGAGGGAGGAAGCGTCCGGAGTGGGGCGGGCCGGACTCCGACCCCCGGGGCGCTT
CGAGCCCCCAGCTGGTCACCGAGGCACCGCCGCTTCACCCAGGCCAGTAGCCGCCCCCTCGCGCACCCCGGGCCC
CGCCTCACACGCGCGCCCGAGCGAGCCCCGGGCTCCCCCTCGGGCCAGCGTGGCGCAGGGGTGAGTGGTTCTCTC
GGGTCTCGGGACAGGTGAGCACCTTGATGAAGGCCACGGTCCTGATGCGGCAGCCTGGGCGGGTGCAGGAGATCG
TGGGCGCCCTCCGCAAGGGCGGCGGAGACCGGTTACAGGTGATTTCTGATTTTGACATGACCTTGAGCAGGTTTG
CATATAATGGAAAGCGATGCCCTTCTTCTTACAATATTCTGGATAATAGCAAGATCATCAGTGAGGAGTGTCCGA
AAGAGCTCACAGCGCTCCTTCACCACTATTACCCAATTGAGATCGACCCACACCGGACCGTCAAGGAGAAGCTAC
CTCATATGGTGGAAATGGTGGACCAAAGCACACAATCTCCTATGTCAGCAGAAGATTGAGAAGTTTCAGATAGCCC
AGGTGGTTAGAGAGTCCAATGCAATGCTCAGGGAGGGATATAAGACCTTCTTCAACACACTCTACCATAACAACA
TTCCCCTTTTTCATCTTTTTCTGCGGGCATTGGTGATATCCTGGAAGAAATTATCCGACAGATGAAAGTGTCCACC
CCAACATCCACATCGTGTCTAACTACATGGATTTTAAATGAAGATGGTTTTCTCCAGGGATTTAAGGGCCAGCTCA
TACACACATACAACAAGAACAGCTCTGCGTGTGAGAACTCTGGTTACTTCCAGCAACTTGAGGGCAAAACCAATG
TCATCCTGCTGGGAGACTCTATCGGGGACCTCACCATGGCCGATGGGGTTCCTGGTGTGCAGAACATTCTCAAAA
TTGGCTTCCTGAATGACAAGGTGGAGGAGCGGCGGGAGCGCTACATGGACTCCTATGACATCGTGTGAGAGAAGG
ACGAGACTCTGGATGTGGTCAACGGGCTACTGCAGCACATCCTGTGCCAGGGGGTCCAGCTGGAGATGCAAGGCC
CCTGAAGGCGCAGGCTCCAGCCCGGCCTGCAGGCCGTGGTGAGGAGGGGCGCCTCCCCAGAGTCTGCTCCCCCGT
GAACACAGAGCAGAGGCCAGGGTGGCCAGCAGTGGCTGGGTCTTCCGCGCCCCTCCGTCTCTTTCCCTGAGC
ACCTTCATCACCAGAGGCTTGAAGGAACCCCGCCATGTGGCAGGGCACAGGCACTGTTCTGTTGAACCTTGGAC
CACAGCATGTGAGTGTCTAGGGATTGTCTACTCCAGGGATTTTCTTCAAAATTTTAAACATGGGAAGTTCAAA
CAAATATAATGTGTGAAACAG

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FIGURE 4827A

CCGGATTTTTCGGGGGTTTCGTCGGGCCTGTGGAAGAAGCGCCGCGCACGGACTTCGGCAGAGGTAGAGCAGGTCTC
TCTGCAGCCATGTTCGGCCAAGGCAATTTTCAGAGCAGACGGGCAAAGAACTCCTTTTACAAGTTTCATCTGTACCACC
TCAGCCATCCAGAATCGGTTCAAGTATGCTCGGGTCACCTCTGACACAGACTGGGCCCCGCTTGCTGCAGGACCAC
CCCTGGCTGCTCAGCCAGAACTTGGTAGTCAAGCCAGACCAGCTGATCAAACGTCGTGGAAAACCTTGGTCTCGTT
GGGGTCAACCTCACTCTGGATGGGGTCAAGTCCTGGCTGAAGCCACGGCTGGGACAGGAAGCCACAGTTGGCAAG
GCCACAGGCTTCTCAAGAAGTTTCTGATCGAGCCCTTCGTCCCCCACAGTCAGGCTGAGGAGTTCTATGTCCTGC
ATCTATGCCACCCGAGAAGGGGACTACGTCCTGTTCCACCACGAGGGGGGTGTGGACGTGGGTGATGTGGACGCC
AAGGCCCAGAAGCTGCTTGTGGCGTGGATGAGAACTGAATCCTGAGGACATCAAAAAACACCTGTTGGTCCAC
GCCCCGTAAGACAAGAAAGAAATTCTGGCCAGTTTTATCTCCGGCCTCTTCAATTTCTACGAGGACTTGTACTTC
ACCTACCTCGAGATCAATCCCCTTGTAGTGACCAAAGATGGAGTCTATGTCTTGACTTGGCGGGCAAGGTGGAC
GCCACTGCCGACTACATCTGCAAAGTGAAGTGGGGTGACATCGAGTTCCCTCCCCCCTTCGGGCGGGAGGCATAT
CCAGAGGAAGCCTACATTGCAGACCTCGATGCCAAAAGTGGGGCAAGCCTGAAGCTGACCTTGCTGAACCCCAA
GGGAGGATCTGGACCATGGTGGCCGGGGGTGGCGCCTCTGTCTGTACAGCGATACCATCTGTGATCTAGGGGGT
GTCAACGAGCTGGCAAACCTATGGGGAGTACTCAGGCGCCCCCAGCGAGCAGCAGACCTATGACTATGCCAAGACT
ATCCTCTCCCTCATGACCCGAGAGAAGCACCCAGATGGCAAGATCCTCATCATTGGAGGCAGCATCGCAAACCTTC
ACCAACGTGGCTGCCACGTTCAAGGGCATCGTGAGAGCAATTCGAGATTACCAGGGCCCCCTGAAGGAGCACGAA
GTCACAATCTTTGTCCGAAGAGGTGGCCCCAACTATCAGGAGGGCTTACGGGTGATGGGAGAAGTCGGGAAGACC
ACTGGGATCCCCATCCATGTCTTTGGCACAGAGACTCACATGACGGCCATTGTGGGCATGGCCCTGGGCCACCGG
CCCATCCCCAACCCAGCCACCCACAGCGGCCACACTGCAAACCTTCTCCTCAACGCCAGCGGGAGCACATCGACG
CCAGCCCCCAGCAGGACAGCATCTTTTTCTGAGTCCAGGGCCGATGAGGTGGCGCCTGCAAAGAAGGCCAAGCCT
GCCATGCCACAAGATTAGTCCCAAGTCCAAGATCCCTGCAAGGAAAGAGCACCACCTCTTCAGCCGCCACACC
AAGGCCATTGTGTGGGGCATGCAGACCCGGGCGCTGCAAGGCATGCTGGACTTTGACTATGTCTGCTCCCGAGAC
GAGCCCTCAGTGGCTGCCATGGTCTACCCTTTCACTGGGGACCACAAGCAGAAGTTTTACTGGGGGCACAAAGAG
ATCCTGATCCCTGTCTTCAAGAACATGGCTGATGCCATGAGGAAGCATCCGGAGGTAGATGTGCTCATCAACTTT
GCCTCTCTCCGCTCTGCCTATGACAGCACCATGGAGACCATGAACTATGCCAGATCCGGACCATCGCCATCATA
GCTGAAGGCATCCCTGAGGCCCTCACGAGAAAGCTGATCAAGAAGGCGGACCAGAAGGGAGTGACCATCATCGGA
CCTGCCACTGTTGGAGGCATCAAGCCTGGGTGCTTTAAGATTGGCAACACAGGTGGGATGCTGGACAACATCCTG
GCCTCCAAACTGTACCGCCAGGCAGCGTGGCCTATGTCTCACGTTCCGGAGGCATGTCCAACGAGCTCAACAAT
ATCATCTCTCGGACCACGGATGGCGTCTATGAGGGCGTGGCCATTGGTGGGGACAGGTACCCGGGCTCCACATT
ATGGATCATGTGTACGCTATCAGGACACTCCAGGAGTCAAAATGATTGTGGTTCTTGGAGAGATTGGGGGCACT
GAGGAATATAAGATTTGCCGGGGCATCAAGGAGGGCGCCTCACTAAGCCCATCGTCTGCTGGTGCATCGGGACG
TGTGCCACCATGTCTCCTCTGAGGTCCAGTTTGCCATGCTGGAGCTTGTGCCAACCAGGCTTCTGAAACTGCA
GTAGCCAAGAACCAGGCTTTGAAGGAAGCAGGAAGTGTTTGTGCCCGGAGCTTTGATGAGCTTGGAGAGATCATC
CAGTCTGTATACGAAGATCTCGTGGCCAATGGAGTCATTGTACCTGCCAGGAGGTGCCGCCCCAACCGTGCCC
ATGGACTACTCCTGGGCCAGGGAGCTTGGTTTGATCCGCAAACCTGCCTCGTTTCATGACCAGCATCTGCGATGAG
CGAGGACAGGAGCTCATCTACGCGGGCATGCCATCACTGAGGTCTTCAAGGAAGAGATGGGCATTGGCGGGGTC
CTCGCCTCCTCTGTTTCCAGAAAAGGTTGCCTAAGTACTCTTGCCAGTTTCATTGAGATGTGTCTGATGGTGACA
GCTGATCACGGGGCAGCCGTCTCTGGAGCCCAACACCATCATTTGTGCGCGAGCTGGGAAAGACCTGGTCTCC
AGCCTCACCTCGGGGCTGCTCACCATCGGGATCGGTTTGGGGGTGCCTTGGATGCAGCAGCCAAGATGTTTCAGT
AAAGCCTTTGACAGTGGCATTATCCCCATGGAGTTTGTGAACAAGATGAAGAAGGAAGGGAAGCTGATCATGGGC
ATTGGTCACCGAGTGAAGTCGATAAACAACCCAGACATGCGAGTGCAGATCCTCAAAGATTACGTACGGCAGCAC
TTCCCTGCCACTCCTCTGCTCGATTATGCACGTGGAAGTAGAGAAGATTACCACCTCGAAGAAGCCAAATCTTATC
CTGAATGTAGATGGTCTCATCGGAGTCGCATTTGTAGACATGCTTAGAAAAGTGTGGGTCTTTACTCGGGAGGAA
GCTGATGAATATATTGACATTGGAGCCCTCAATGGCATCTTTGTGCTGGGAAGGAGTATGGGGTTTATTGGACAC
TATCTTGATCAGAAGAGGCTGAAGCAGGGGCTGTATCGTCATCCGTGGGATGATATTTTCATATGTTCTTCCGGAA
CACATGAGCATGTAACAGAGCCAGGAACCTACTGCAGTAAACTGAAGACAAGATCTCTTCCCCCAAGAAAAAGT
GTACAGACAGCTGGCAGTGGAGCCTGCTTTATTTAGCAGGGGCTGGAATGTAAACAGCCACTGGGGTACAGGCA
CCGAAGACCAACATCCACAGGCTAACACCCCTTCAGTCCACACAAAGAAGCTTCATATTTTTTTTATAAGCATAG

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FIGURE 4827B

AAATAAAAACCAAGCCAATATTTGTGACTTTGCTCTGCTACCTGCTGTATTTATTATATGGAAGCATCTAAGTAC
TGTCAGGATGGGGTCTTCCTCATTGTAGGGCGTTAGGATGTTGCTTTCTTTTCCATTAGTTAAACATTTTTTTC
TCCTTTGGAGGAAGGGAATGAAACATTTATGGCCTCAAGATACTATACATTTAAAGCACCCCAATGCTCTCTCTT
TTTTTTTTTTACTTCCCTTTCTTCTTCCTTATATAACATGAAGAACATTGTATTAATCTGATTTTTAAAGATCTT
TTTGTATGTTACGTGTTAAGGGCTTGTTTGGTATCCCACTGAAATGTTCTGTGTTGCAGACCAGAGTCTGTTTAT
GTCAGGGGGATGGGGCCATTGCATCCTTAGCCATTGTCACAAAATATGTGGAGTAGTAACCTAATATGTAAAGTT
GTAACATACATACATTTAAAATGGAAATGCAGAAAGCTGTGAAATGTCCTTGTGTCTTATGTTCTCTGTATTTATG
CAGCTGATTTGTCTGTCTGTAAGTGTGGGTCCAAGGACTCCTAACTACTTTGCATCTGTAATCCACAAAG
ATTCTGGGCAGCTGCCACCTCAGTCTCTTCTCTGTATTATCATAGTCTGGTTTAAATAAACTATATAGTAACA

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FIGURE 4828

MSAKAISEQTGKELLYKFICTTSAIQNRFKYARVTPD TDWARLLQDHPWLLSQNLVVKPDQLIKRRGKLGLVGVN
LTLDGVKSWLKPRLGQEATVGKATGFLKNFLIEPFPVPHSQAEFVFCIYATREGDYVLFHHEGGVDVGDVDAKAQ
KLLVGVDEKLNPE DIKKHLLVHAPEDKKEILASFISGLFNFYEDLYFTYLEINPLVVTKDGVYVLDLAAKVDATA
DYICKVKWGDI EFPPPF GREAYPEEAYIADLDAKSGASLKLTLNPKGRIWTMVAGGGASVVYSDTICDLGGVNE
LANYGEYSGAP SEQQTYDYAKTILSLMTREKHPDGKILII GGSIANFTNVAATFKGIVRAIRDYQGPLKEHEVTI
FVRRGGPNYQEGLRVMGEVGKTTGIP IHVFGTETHMTAIVGMALGHRP IPNQPTAAHTANFLLNASGSTSTPAP
SRTASFSESRADEVAPAKKAKPAMPQDSVPSRSLQGKSTTLFSRHTKAI VWGMQTRAVQGMLDFDYVCSRDEPS
VAAMVYPFTGDHKQKFYWGHKEILIPVFKNMADAMRKHPEVDVLINFASLSAYDSTMETMNYAQIRTIAIIAEG
IPEALTRKLIKADQKGVTIIGPATVGGIKPGCFKIGNTGGMLDNILASKLYRPGSVAYVSRSGGMSNELNNIIS
RTTDGVYEGVAIGGDRYPGSTFMDHVLRYQDTPGVKMI VVLGEIGGTEEYKICRGIKEGRLSTPVVCWCIGTCAT
MFSSSEVQFGHAGACANQASETAVAKNQALKEAGVFVPRSFDELGEIIQSVYEDLVANGVIVPAQEVPPPTVPM DY
SWARELGLIRKPASFMTSICDERGQELIYAGMPI TEVFKEEMGIGGVLGLLWFQKRLPKYSCQFIEMCLMVTADH
GPAVSGAHNTIICARAGKDLVSSLTSGLLTIGDRFXGCLGCSSQDVQ

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FIGURE 4829

GGCTGAGGGGAGGGCCGTTGGCCGGGGCCTGCGGTACGCCGCTTCAGTGAGGGACGCCACTGCGGGCCACCCGGCT
TGCTGCCTTCCTGGGCGCCACTCCCCAGGCGACCCGACGCGACGCGCCAGCAGCGCAGCACCATTCTCTCGG
GCTCTTGGGCGCTGCTCTGAGCAGCGTCACCCTTTACACCAGAAAGCTGGCGGGCACTATGGGGAAAAAACAAAA
CAAGAAGAAAGTGAGGAGGTGCTAGAAGAGGAGGAAGAGGAATATGTGGTGAAAAAGTTCTCGACCGTCGAGT
GGTAAAGGGCAAAGTGAGGTACCTCCTAAAGTGGAAGGGATTCTCAGATGAGGACAACACATGGGAGCCAGAAGA
GAACCTGGATTGCCCCGACCTCATTGCTGAGTTTCTGCAGTCACAGAAAACAGCACATGAGACAGATAAATCAGA
GGGAGGCAAGCGCAAAGCTGATTCTGATTCTGAAGATAAGGGAGAGGAGAGCAAACCAAAGAAGAAGAAAGAAGA
GTCAGAAAAGCCACGAGGCTTTGCTCGAGGTTTGGAGCCGGAGCGGATTATTGGAGCTACAGACTCCAGTGGAGA
GCTCATGTTCTGTATGAAATGGAAAACTCTGATGAGGCTGACCTGGTCCCTGCCAAGGAAGCCAATGTCAAGTG
CCCACAGGTTGTATATCCTTCTATGAGGAAAGGCTGACGTGGCATTCTACCCCTCGGAGGATGATGACAAAAA
AGATGACAAGAATAACGCTCCTGAGTACCAGCCCCTGTACATCTGACTGTGGGTTTCAAGTGGGAAGGGAAGG
AGTTCTACTTGTCTTGACACCATAGAGGTGGCTTGAGAAGATGTCCTTTGAAGAGCCAGTATAGTTTCTGTGCCC
TGCAGCAGCCCCAAGTGCTTTAAAGCCGTTTCAAGCTGTATAGTTTGCACACCCATCCAGTGGAGGGGAAAGGGG
ATAAGTGTTTCAAGGCAACCTTTTCTGCACCTTGTGCGAAAAGCAAAGGGCCTTCTATGAAGACAAAACCTTGC
AGAATTGGGTGTGTGGGAGAGCAAAAAATACTGTAGATCTTCAAAGAGCATCTCCACAACCCACAGCCTTCTTC
CCAATAGTGTTAACTCTGCATTTTTTACAGCGTAGCATGTGTGTAGTTTTTGGCTATTACTGGTGATTATTTGGG
GGAGGGAGGGATGGGGAGGGGAGAAAGGGAGATGGGTAGCATCATTTTGATTAAACATTTGGGGCCTGATAGGGGA
AATGGTGAAGCAATGGAAAAGAACAGACAATAATGATTGTCTTCTATGTCCAGAAATATTTACCTTTAAAAAAA
TGTCATTGGCACCATAAATAAGGACTGTGAGAGACTGTTTAAAAGCTGTGAAAGTCTGAAACCTATAAGCCAAGG
TGTTCCCTGCCTAACTTATTGCTGTTCCCAAAAGGACTAAGCCTGTTTATAAGTTACCAAAGTTGCCATTTTG
GAGATGGAAATTGACGAGGAGGGAAGGTCTTTTATTGGAGAGTATACAGTACAAGCAGATCATTCTGCCTTAGAG
GTGCTAATTTCCGAAATTAGAAGACCCTTTCTTTTCCAGTAACGAAGTTATAAATATCAGCTTGTTTCATCCAAGC
CACTGGCTGAGGTGTTAGGAAGAGGAAGAGGGTGGTAGAGGAGGTAAGACAGTAGGGAAAGACAAGGGCCCATGC
TCTTAGTGGGGAAAACCTCTTGAGCCGTTTACTTTGAGCTTTGAACACTGAAACCATTGTTGGCAGGGTTCAGTC
ACTGACAGCACAAAGTTTCACTGAATTGATCCAAGAGTTTAGTGATTTCAAAAGCCTTGGTCTCAGGAGAAGATTA
AACTTTTCATATTGGGCAGTGGTTCACTTTAAACACACACATACACACACAAAACAATTTTTTAAGAAATCCTAA
TAAGTAACATACCCAAAATGCTCTGTCTTGAGTCATGAGAACCATCAGTTCTTGATATTGTCTAGACTTGCACT
AGAGCTACGTTGTAAAATCTTTTAGGCATGTGTTAGATTTCTGTGTAAACTTTGTTTAAATGTAAACTTCATAC
TACATTGTCAGTTTTTGTCTTAATAAACTATAGATTTAT

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FIGURE 4830

CTGAAGCGGAAGTGGAGGAAAGATGGAGGACCATCAGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGA
TTGGCTGGTGGACAGAAGGCACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGC
TGCCATCCAGGACATGCCAGAGAGCGAAGAGATCGCCAGCTGCTGTCTGGGTCTACATTCACTACTTTCACTG
CCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTCCACGAAGAATATTTTTGGCCGATACTCTTCACAGCG
GATGAAGGATTGGCAGGAGATTATAGCTCTGTATGAGAAGGACAACACCTACTTAGGTAAAGTGGCCCGGCTGG
GAGCCCTGGTATCCATGGGGAAGCCCACTCTCAGAGTTCTGAGATACCAGGCTTATAGGAGGCACAGTCTGTGAG
TGGGAAGAGACTGGAGTGTAGATGTTGCCATTTGTAGGTGGTAAATCAATTGTTTTTGATGGAATTGATTTTC
CCTGAGTGGAGTGTCTGGGGGAAGGAGGAGGTCCAGGCCGGTAGTGGCCATTCGCCGTGCCTCAGCGAGCAGGTGT
GTGTGGGTCTCTCCACCACTCACCTCTTGTTAGCGGGAGTGTGCTGCCCCACCCCCACCCCCGACCCCCATTTC
TACACAAGGCAGAAGAGGCACGGGTTTTCTGGGAGCGAATATCAAGTGCCTGAGAGCAACTACAGGACTAACTG
TGTTTTGGGTTGGGTGTAGTATAAATAATAATAATGGCTAATATTTCTGAGCATCTACTAAATGCAAGGAATTGT
GCTTGGTGTGTCTGTGGATTCTCTCTTGATCTTCATGATAAATGTTATTGTCGCTGTTTTACCGATGAGGGTT
GGATTAGAGGGGTTAAACAACCTGTCTTAGGCTCCACAGCTGGGAACAAGTGGGGCTGGGAAGCTGACTTCGTGC
TCTTCACCACCACAAAGGATGTGTGTGCATCCTGGGGCATGCCTGCCTCATGTGGGGGTGTCTGGGCTGAATTT
CCTGGGCACCTCTCAGTGGAACTCTCTAGCCTCCTGGTTCGGAATGTCAACTATGAGATCCCTCACTGAAGAAG
CAGATTGCCAAGTGCCAGCAGCTGCAGCAAGAATACAGCCGCAAGGAGGAGGAGTGCCAGGCAGGGGCTGCCGAG
ATGCGGGAGCAGTTCTACCACTCCTGCAAGCAGTATGGCATCACGGGCGAAAATGTCCGAGGAGAACTGCTGGCC
CTGGTGAAGGACCTGCCGAGTCAGCTGGCTGAGATTGGGGCAGCGGCTCAGCAGTCCCTGGGGGAAGCCATTGAC
GTGTACCAGGCGTCTGTGGGGTTTGTGTGTGAGAGCCCCACAGAGCAGGTGTTGCCAATGCTGCGGTTCTGTGCAG
AAGCGGGGAAACTCAACGGTGTACGAGTGGAGGACAGGGACAGAGCCCTCTGTGGTGGAAACGACCCACCTCGAG
GAGCTTCTGAGCAGGTGGCAGAAGATGCGATTGACTGGGGCGACTTTGGGGTAGAGGCAGTGTCTGAGGGGACT
GACTCTGGCATCTCTGCCGAGGCTGCTGGAATCGACTGGGGCATCTTCCCGGAATCAGATTCAAAGGATCCTGGA
GGTGATGGGATAGACTGGGGAGACGATGCTGTTGCTTTGCAGATCACAGTGTGGAAGCAGGAACCCAGGCTCCA
GAAGGTGTTGCCAGGGGGCCAGATGCCCTGACACTGCTTGAATACACTGAGACCCGGAATCAGTTCTTGATGAG
CTCATGGAGCTTGAGATCTTCTTAGCCCAGAGAGCAGTGGAGTTGAGTGAGGAGGCAGATGTCTGTCTGTGAGC
CAGTTCCAGCTGGCTCCAGCCATCCTGCAGGGCCAGACCAAAGAGAAGATGGTTACCATGGTGTGAGTGTGAG
GATCTGATTGGCAAGCTTACCAGTCTTCAGCTGCAACACCTGTTTATGATCCTGGCCTCACCAAGGTATGTGGAC
CGAGTGACTGAATTCTCCAGCAAAAGCTGAAGCAGTCCCAGCTGCTGGCTTTGAAGAAAGAGCTGATGGTGCAG
AAGCAGCAGGAGGCACCTTGAGGAGCAGGCGGCTCTGGAGCCTAAGCTGGACCTGCTACTGGAGAAGACCAAGGAG
CTGCAGAAGCTGATTGAAGCTGACATCTCCAAGAGGTACAGCGGGCGCCCTGTGAACCTGATGGGAACCTCTCTG
TGACACCCCTCCGTGTTCTTGCTGCCATCTTCTCCGCTTTTGGGATGAAGATGATAGCCAGGGCTGTTGTTTGT
GGGCCTTTCAAGGCAAAAGACCAGGCTGACTGGAAGATGGAAAGCCACAGGAAGGAAGCGGCACCTGATGGTGAT
CTTGGCACTCTCCATGTTCTCTACAAGAAGCTGTGGTGATTGGCCCTGTGGTCTACCAGGCGAAAACACAGATT
CTCCTTCTAGTTAGTATAGCGGACTTAATAAAAGAGGAAAAACAAAAAAAAAAAAAAAAAAAA

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FIGURE 4831

MCVHPGACLP HVGVSWAEFP GHFSVELSSLLVRNVN YEIPSLKKQIAKCQQLQQEYSRKEEECQAGAAEMREQFY
H SCKQYGITGENVRGELLALVKDLPSQLAEI GAAAQQSLGEAIDVYQASVGFVCESPT EQVLPMLRFVQKRGNST
VYEWRTGT EPSVVERPHLEELPEQVAEDAIDWGDFGVEAVSEGTD SGISAEAAGIDWGIFPESDSKDPGGDGIDW
GDDAVALQITVLEAGTQAPEGVARGPDALT LLEYTETR NQFLDELMELEIFLAQRAVELSEEADVLSVSQFQLAP
AILQGQTKEKMVTMVSVLEDLIGKLTS LQLQHLFMILASPRYVDRVTEFLQQKLKQS QLLALKKELMVQKQQEAL
EEQAAL EPKLDL LLEKTKELQKLI EADISK RYSGRPVNL MGTSL

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FIGURE 4832

GAAGAGGGTTCGGGTATCTGGGCATGCGCAGGGCCGAGGACTCTTGGTGGGGTAGCGAGGGGGACGGTCCCACGA
CTGCTCCGAAGGGCCGGGACTCCAGTGGGGGCGGGACCCCGGAGTGCCCGCCTGCGGACTCCCAAGCCTGGAG
CCTGGGGAGAGGGTGGGCACCTCCGTTCCCGCACACCCGTCCATGGTGTGTGCGCCGAGCGTCCAGGAGCCACGG
CGGTGTCTTCCTTGCGCGTCTTTTACACGTGTGGGGGTAGGCTGCTCCTCGGGGCTGAGCCGTGGCCAGGGTTAT
GGAGAGGGCCCGCTCTCCCCAGATGGCGTCGTCGAGCCCTGACTCCCCATGTTCTGCGACTGCTTTGTCTCCGT
GCCCCCGCCTCAGCCATCCCGGCTGTGATCTTTGCCAAGAACTCGGACCGACCCCGGGACGAGGTGCAGGAGGT
GGTGTGTTGTCCCCGCAGGCACTCACACTCCTGGGAGCCGGCTCCAGTGCACCTACATTGAAGTGGAAACAGGTGTC
GAAGACGCACGCTGTGATTCTGAGCCGTCTTCTTGGCTATGGGGGGCTGAGATGGGCGCCAACGAGCATGGTGT
CTGCATTGGCAACGAGGCTGTGTGGACGAAGGAGCCAGTTGGGGAGGGGGAAGCCCTGCTGGGCATGGACCTACT
CAGGCTGGCTTTTGAACGGAGCAGCTCTGCCCAGGAGGCCCTTGATGTGATCACAGGGTTACTGGAGCACTATGG
GCAGGGGGGCAACTGCCTGGAGGATGCTGCGCCATTCTCCTACCATAGCACCTTCCTGCTGGCTGACCGCACTGA
GGCGTGGGTGCTGGAGACAGCTGGGAGGCTCTGGGCTGCACAGAGGATCCAGGAGGGGGCCCGCAACATCTCCAA
CCAGCTGAGCATTGGCACGGACATCTCGGCCCAACACCCGGAGCTGCGGACTCATGCCAGGCCAAGGGCTGGTG
GGATGGGCAGGGTGCCTTTGACTTTGCTCAGATCTTCTCCCTGACCCAGCAGCCTGTGCGCATGGAGGCTGCCAA
GGCCCCGCTTCCAGGCAGGGCGGGAGCTGCTGCGGCAACGGCAAGGGGGCATCACGGCAGAGGTGATGATGGGCAT
CCTCAGAGACAAGGAGAGTGGTATCTGTATGGACTCGGGAGGCTTTCGCACCACGGCCAGCATGGTGTCTGTCTCT
GCCCCAGGATCCCACGCAGCCCTGCGTGCACCTTTCTTACCGCCACGCCAGACCCATCCAGGTCTGTGTTCAAACC
TTTCATCTTCGGGATGGGGGTGGCCAGGCCCCCCAGGTGCTGTCCCCCACTTTTGGAGCACAAGACCCTGTTTCG
GACCCTGCCCCGATTCCAGACTCAGGTAGATCGTCGGCATAACCCTCTACCGTGGACACCAGGCAGCCCTGGGGCT
GATGGAGAGAGATCAGGATCGGGGGCAGCAGCTCCAGCAGAAACAGCAGGATCTGGAGCAGGAAGGCCTCGAGGC
CACACAGGGGCTGCTGGCCGGCGAGTGGGCCCCACCCCTCTGGGAGCTGGGCAGCCTCTTCCAGGCCTTCGTGAA
GAGGGAGAGCCAGGCTTATGCGTAAGCTTCATAGCTTCTGCTGGCCTGGGGTGGACCCAGGACCCCTGGGGCCTG
GGTGCCCTGAGTGGTGGTAAAGTGGAGCAATCCCTTCACGCTCCTTGGCCATGTTCTGAGCGGCCAGCTTGGCCT
TTGCCTTAATAAATGTGCTTTATTTTC

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FIGURE 4833

MASSSPDSPCSCDCFVSVPASAI PAVIFAKNSDRPRDEVQEVVFPAGTHTPGSRLQCTYIEVEQVSKTHAVIL
SRPSWLWGAEMGANEHGVCIGNEAVWTKEPVGEGEALLGMDLLRLALERSSSSAQEALHVITGLLEHYGGNCLE
DAAPFSYHSTFLLADRTEAWVLETAGRLWAAQRIQEGARNISNQLSIGTDISAQHPELRTHAQAKGWWDGQGAFD
FAQIFSLTQQPVRMEAAKARFQAGRELLRQRQGGITAEVMMGILRDKESGICMDSGGFRTTASMSVLPQDPTQP
CVHFLTATPDPSRSVFKPFFIFGMGVAQAPQVLSPTFGAQDPVRTLPRFQTQVDRRHTLYRGHQAALGLMERDQDR
GQQLQQKQQDLEQEGLEATQGLLAGEWAPPLWELGSLFQAFVKRESQAYA

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FIGURE 4834

TCTCCCTCCGCTCCCGAGCACCAGCGCGCTCTGAGCTGCCCCAGGGTCCCTCCCCCGCCGCCAGCAGCCCAT
TGGAGGGAGGAAGTAAGGGAAGAGAGAGGAAGGGGAGCCGGACCGACTACCCAGACAGAGCCGGTGAATGGGT
TGTGGTGACCCCCGCCCCCACCACCCCTCCCTTCCCACCCGACCCCCAACCCCCATCCCCAGTTTCGAGCCGCC
GCCGAAAGGCCGGGCCGCTCGTCTTAGGAGGAGTCGCCGCCGCCGCCACCTCCGCCATGAGCTGATCACCATT
TCGAGAAGACCGTGCTCCTCCGATCGGCTGGAGCTGGAAGCGGCGCAGAAGTTCTGGAGCGTGCGGCCGTGGAGA
ACCTGCCCACTTTCTTGTGGAAGTGTCCAGAGTGTGGCAAATCCAGGAAACAGTCAGGTTGCCAGAGTTGCAG
CTGGTCTACAAATCAAGAACTCTTTGACATCTAAAGATCCAGATATCAAGGCACAATATCAGCAGAGGTGGCTTG
CTATTGATGCTAATGCTCGACGAGAAAGTCAAGAACTATGTTTTGCAGACATTGGGTACAGAACTTACCGGCCCTA
GTTCTGCCTCACAGTGTGTGGCTGGTATTGCTTGTGCAGAGATCCAGTAAACAGTGGCCAGAAGTCAATTCCTC
AGCTGGTGGCCAATGTACAAAACCCCAACAGCACAGAGCACATGAAGGAGTCGACATTGGAAGCCATCGGTTATA
TTTGCCAAGATATAGACCCAGAGCAGCTACAAGATAAATCCAATGAGATTCTGACTGCCATAATCCAGGGGATGA
GGAAAGAAGAGCCTAGTAATAATGTGAAGCTAGCTGCTACGAATGCACCTCTGAAGTCAATGGAGTTCCACAAAG
CAAACCTTTGATAAAGAGTCTGAAAGGCACCTTTATTATGCAGGTGGTCTGTGAAGCCACACAGTGTCCAGATACGA
GGGTACGAGTGGCTGCTTTACAGAATCTGGTGAAGATAATGTCCTTATATTATCAGTACATGGAGACATATATGG
GTCTGCTCTTTTTGCAATCACAATCGAAGCAATGAAAAGTGACATTGATGAGGTGGCTTTACAAGGGATAGAAT
TCTGGTCCAATGTCTGTGATGAGGAAATGGATTTGGCCATTGAAGCTTCAGAGGCAGCAGAACAGGACGGCCCC
CTGAGCACACCAGCAAGTTTTATGCGAAGGGAGCACTACAGTATCTGGTTCCAATCCTCACACAGACACTAACTA
AACAGGACGAAAATGATGATGACGATGACTGGAACCCCTGCAAAGCAGCAGGGGTGTGCCTCATGCTTCTGGCCA
CCTGCTGTGAAGATGACATTGTCCCACATGTCTCCCTTCATTAAAGAACACATCAAGAACCCAGATTGGCGGT
ACCGGGATGCAGCAGTGTGGCTTTTGGTTGTATCTTGAAGGACCAGAGCCCAGTCAGCTCAAACCACTAGTTA
TACAGGCTATGCCCACCCTAATAGAATTAATGAAAGACCCAGTGTAGTTGTTTCGAGATACAGCTGCATGGACTG
TAGGCAGAATTTGTGAGCTGCTTCTGAAGCTGCCATCAATGATGTCTACTTGGCTCCCCTGCTACAGTGTCTGA
TTGAGGGTCTCAGTGTGAACCCAGAGTGGCTTCAAATGTGTGCTGGGCTTTCTCCAGTCTGGCTGAAGCTGCTT
ATGAAGCTGCAGACGTTGCTGATGATCAGGAAGAACCAGCTACTTACTGCTTATCTTCTTCAATTTGAAGTCAATG
TTCAGAAGCTCCTAGAGACTACAGACAGACCTGATGGACACCAGAACACCTGAGGAGTTCTGCATATGAATCTC
TGATGGAAATTGTGAAAAACAGTGCCAAGGATTGTTATCTGCTGTCCAGAAAACGACTTTGGTCAATCATGGAAC
GACTGCAACAGGTTCTTCAGATGGAGTCACATATCCAGAGCACATCCGATAGAATCCAGTTCAATGACCTTCAGT
CTTTACTCTGTGCAACTCTTCAGAAATGTTCTTCGGAAAGTGCAACATCAAGATGCTTTGCAGATCTCTGATGTGG
TTATGGCCTCCCTGTAAAGGATGTTCCAAAGCACAGCTGGGTCTGGGGAGTACAAGAGGATGCCCTGATGGCAG
TTAGCACACTGGTGAAGTGTGGGTGGTGAATTCCTCAAGTACATGGAGGCCTTTAAACCCCTCCTGGGCATTG
GATTAATAAATTAATGCTGAATACCAGGTTTGTGGCAGCTGTGGGCTTAGTGGGAGACTTGTGCCGTGCCCTGC
AATCCAACATCATACTTTCTGTGACGAGGTGATGCAGCTGCTTCTGGAAAATTTGGGGAATGAGAAGCTCCACA
GGTCTGTGAAGCCGAGATTCTGTGAGTGTGGTGTATTTGCCCTTGCTATTGGAGGAGAGTTAAAAAATACT
TAGAGGTTGTATTGAATACTCTTCAGCAGGCCTCCCAAGCCAGGTGGACAAGTCAGACTATGACATGGTGGATT
ATCTGAATGAGCTAAGGGAAAGCTGCTTGAAGCCTATACTGGAATCGTCCAGGGATTAAAGGGGGATCAGGAGA
ACGTACACCCGGATGTGATGCTGGTACAACCCAGAGTAGAATTTATTCTGTCTTTCATTGACCACATTGCTGGAG
ATGAGGATCACACAGATGGAGTAGTAGCTTGTGCTGCTGGACTAATAGGGGACTTATGTACAGCATTGGGAAGG
ATGTACTGAAATTAGTAGAAGCTAGGCCAATGATCCATGAATTGTTAACTGAAGGGCGGAGATCGAAGACTAACA
AAGCAAAAACCTTGCTACATGGGCAACAAAAGAACTGAGGAACTGAAGAACCAAGCTTGAATCTGTTACCATG
GGATGATAACCTGAGGACCCCCACTGGAATCTCCCATCTTTTAAAAACCTGGAAGTGAGGAGTGTGCACGGAT
GCTGAATGTTTGGGAATGAGAGGATGAGTGAGTGAGGCTTGAACACACACCACATTGAAAATCCTGCCACAGCAG
CAGCCGCAGCCGCAACAGCAGCGCTGTAGTGAGCTAAGTAAGCACTGACTTCGTAGAAAACCATACATCGGC
CATCTTGGAAAAGAGAAAACAATGGAGTTACTTATTTAAAAA

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FIGURE 4835

MELITILEKTVSPDRLELEAAQKFLERA AVENLPTFLVELSRVLANPGNSQVARVAAGLQIKNSLT SKDPDIKAQ
YQQRWLAI DANARREVKNYVLQTLGTETYPSSASQCVAGIACAEIPVNQWP ELIPQLVANVTNPNSTE HMKEST
LEAIGYICQDIDPEQLQDKSNEILT AI IQGMRKEEPSNNVKLAATNALLNSLEFTKANFDKESERHFIMQVVCEA
TQCPDTRVRVAALQNLVKIMSLYYQYMETYMG PALFAITIEAMKSDIDEVALQGIEFWSNVCDEEMDLAIEASEA
AEQGRPPEHTSKFYAKGALQYLVPILTQT LTKQDENDDDDDDWNPCKAAGVCLMLLATCCEDDIVPHVLPFIKEHI
KNPDWRYRDAAVMAFGCILEGPEPSQLKPLVIQAMPTLIELMKDPSVVVRDTAAWTVGRICELLPEAAINDVYLA
PLLQCLIEGLSAEPRVASNVCWAFSSLA EAAYEAADVADDQEEPATYCLSSSFELIVQKLETTDRPDGHQNNLR
SSAYESLMEIVKNSAKDCYPAVQKTTLVIMERLQQVLQ MESH IQSTSDRIQFNDLQSLLCATLQNVLRKVQHQDA
LQISDVVMASLLRMFQSTAGSGGVQEDALMAVSTLVEVLGGEFLKYMEAFKPFLGIGLKNYA EYQVCLA AVGLVG
DLCRALQSNIIPFCDEVMQLLENLGNENVHRSVKPQILSVFGDIALAIGGEFKKYLEVVLNTLQQASQAQVDKS
DYDMVDYLNELRESCLEAYTGIVQGLKGDQENVH PDVMLVQPRVEFILSFIDHIAGDEDHTDGVVACAAGLIGDL
CTAFGKDV LKLV EARPMIHELLTEGRRSKTNKAKTLATWATKELRKLNQA

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FIGURE 4836

CCCTCCCCCTCCGCCCCCTTCCCCGTAGGCAGCCCGCCCGCCAGTCCGCCCCGCACCGCCTCCTTCCCAGCCCCCTAG
CGCTCCGGCTGGGTCTCTCCCCCGCCCCCAGGCTCCCCCGGTGCTCTCCTCCGGCGGTGCCCCGCGCTCGGTG
GATGTGGCTGGCAGCTGCCGCCCCCTCCCTCGCTCGCCGCTGCTCTTCTCGGCCCTCCGCTCCTCCCCCTCCT
CCTTCTCGTCTTCAGCCGCTCCTCTCGCCGCCGCTCCACAGCCTGGGCCTCGCCGCGATGCCGGAAGAGGCC
CTTCGAGGGCAAGCTGGAGGCCGCCGCCAGGTGAGGCAGGCGACTAATCAGATTGTGATGAATTGTGCTGATAT
TGATATTATTACAGCTTCATATGCACCAGAAGGAGATGAAGAAATACATGCTACAGGATTTAACTATCAGAATGA
AGATGAAAAAGTCACCTTGTCTTTCCCTAGTACTCTGCAAACAGGTACGGGAACCTTAAAGATAGATTTTGTGG
AGAGCTGAATGACAAAATGAAAGGTTTCTATAGAAGTAAATATACTACCCCTTCTGGAGAGGTGCGCTATGCTGC
TGTAACACAGTTTGAGGCTACTGATGCCCCGAAGGGCTTTTCCTTGCTGGGATGAGCCTGCTATCAAAGCAACTTT
TGATATCTCATTGGTTGTTCTTAAAGACAGAGTAGCTTTATCAAACATGAATGTAATTGACCGGAAACCATACCC
TGATGATGAAAATTTAGTGGAAGTGAAGTTTGCCCGCACACCTGTTATGTCTACATATCTGGTGGCATTGTGTTGT
GGGTGAATATGACTTTGTAAGAAACAAGGTCAAAAGATGGTGTGTGTGTCCTGTTTACACTCCTGTTGGCAAAGC
AGAGCAAGGAAAAATTTGCGTTAGAGGTTGCTGCTAAAACCTTGCTTTTTTATAAGGACTACTTCAATGTTTCCTTA
TCCTCTACCTAAAATTGATCTCATTGCTATTGCAGACTTTGCAGCTGGTGCCATGGAGAAGTGGGGCCTTGTTAC
TTATAGGGGAGACTGCATTGCTTATTGATCCAAAAAATTCCTGTTCTTCATCCCGCCAGTGGGTTGCTCTGGTTGT
GGGACATGAACTCGCCCATCAATGGTTTGGAATCTTGTTACTATGGAATGGTGGACTCATCTTTGGTTAAATGA
AGGTTTTCATCCTGGATTGAATATCTGTGTGTAGACCACTGCTTCCCAGAGTATGATATTTGGACTCAGTTTGT
TTCTGCTGATTACCCCGTGCCAGGAGCTTGACGCCTTAGATAACAGCCATCCTATTGAAGTCAGTGTGGGCCA
TCCATCTGAGGTTGATGAGATATTTGATGCTATATCATATAGCAAAGGTGCATCTGTCATCCGAATGCTGCATGA
CTACATTGGGGATAAGGACTTTAAGAAAGGAATGAACATGTATTTAACCAAGTTCCAACAAAAGAATGCTGCCAC
AGGTAATCTCTTAATAGCTTGAGATAGAAATGGAGAGAAAGTATTGTCACTCTATCCAGGCTGGGACATTTTATTT
TTGTTCTGAATACTTAAGGTCAGGATCCATGTAATAAATAAATTAGCCTTATTTG

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FIGURE 4837

MWLAAAAPSLARRLLFLGPPPPPLLLLVSRRSRRRLHSLGLAAMPEKRPFERLPADVSPINCSLCLKPDLLDFT
FEGKLEAAAQVRQATNQIVMNCADIDIITASYAPEGDEEIHATGFNYQNEDEKVTLSTLQGTGTGTLKIDFVG
ELNDKMKGFYRSKYTTSPSGEVRYAAVTQFEATDARRAFPCWDERAIKATFDISLVVPKDRVALSNMNVIDRKPY
DDENLVEVKFARTPVTSTYLVAFFVGEYDFVETRSDGVCVCVYTPVGKAEQKFALEVAAKTLFFYKDYFNVPY
PLPKIDLIAIADFAAGAMENWDLVTYRETALLIDPKNSCSSSRQWVALVVGHELAHQWFGNLVTMEWWTHRLNE
GFASWIEYLCVDHCFPEYDIWTQFVSADYTRAQELDALDNSHP IEVSVGHPSEVDEIFDAISYSGASVIRMLHD
YIGDKDFKKGMNMYLTKFQQKNAAAGNL

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FIGURE 4838

CGCCCGGGCAGGTCTCCCGGAAGTGGCCGGTCCAGAGCTGTGGGGTGCCTCCGCGCGGTCTCTGGCGGATCGGGG
AATCGGATCAAGGCGAGAGGATCCGGCAGGGAAGGAGCTTCGGGGCCGGGGTTGGGCCGCACATTTACGTGCGC
GAAGCGGAGTGGACCGGGAGCTGGTGACGATCGCGGGGCCGAGCCCCCTGGCGCTGCAACTGGAACAGTTGTTGA
ACCCGCGACCAAGCGAGGCGGACCTGAAGCGGACCCCGAGGAAGCCACTGCTGCCAGGGTGATTGACAGGTTTG
ATGAAGGGGAAGATGGGGAAGGTGATTTCCTAGTAGTGGGTAGCATTAGAAAAGTGGCATCAGCCTCCCTCTTG
ACACGGACAAAAGGTATTGCGGCAAAACCACTCTAGAAAAGCATGGAATGAAGACCATTGGGAGCAGACTCTGC
CAGGATCGTCTGATGAGGAAATATCTGATGAGGAAGGGTCTGGAGATGAAGATTGAGAGGGACTGGGTCTGGAGG
AATATGATGAGGACGACCTGGGTGCTGCTGAGGAACAGGAGTGTGGTGATCACAGGGAGAGCAAGAAGAGCAGAA
GCCACTCTGCAAAAACACCGGGCTTCAGTGCTCCAGAGTATCAGTGACTTTGAGAAATTTACCAAGGGAATGGATG
ACCTTGGGAGCAGTGAGGAGGAGGAAGACGAAGAGAGTGGCATGGAAGAAGGGGATGACGCGGAAGACTCCCAAG
GCGAGAGTGAGGAAGACAGGGCTGGAGATAGAAAACAGTGAGGATGATGGTGTTGGTGATGACCTTCTCTAGTGTC
AAGTTTCTGAGGAAGTGGAGAAAGGAAGAGCCGTGAAGAACCAGATAGCACTGTGGGACCAGCTCTTGGAAGGAA
GGATCAAATACAAAAAGCTCTGTTGACCACCAACCAGCTTCCTCAACCAGATGTTTTCCCATTTGTTCAAGGACA
AAGGTGGCCAGAAATTTCCAGTGCCCTGAAAAATAGTCACAAGGCACCTAAAGCATTGTTGAGGTCATTGGTAG
GTCTTCAGGAAGAGTTGCTTTTCCAGTACCCAGACACTAGATATCTAGTAGATGGGACAAAGCCCAATGCGGGAA
GTGAGGAGATTTCTAGTGAAAGATGATGAGCTGGTAGAAGAGAAGAAGCAGCAACGAAGAAGGGTCCCTGCAAGA
GGAAGCTGGAGATGGAGGACTATCCCAGCTTCATGGCAAAGCGCTTTGCCGACTTTACAGTCTACAGGAACCGCA
CACTTCAGAAATGGCACGATAAGACCAAACTGGCTTCTGGAAAAGTGGGGAAGGGTTTTGGTGCTTTGAACGCT
CAATCTTGACTCAGATCGACCATATCTGATGGACAAAGAGAGATTACTTCGAAGGACACAGACCAAGCGCTCTG
TCTATCGAGTTCTTGGCAAACCTGAGCCAGCAGCTCAGCCTGTCCCAGAGAGTTTGCCAGGGGAACCGGAGATCC
TTCCTCAAGCCCCTGCTAATGCTCATCTGAAGGACTTGGATGAAGAAATCTTTGATGATGATGACTTTTACCACC
AGCTCCTTCGAGAACTCATAGAACGGAAGACCAGCTCCTTGGATCCCAACGATCAGGTGGCCATGGGAAGGCAGT
GGCTTGCAATCCAGAAAGTTACGAAGCAAAATCCACAAAAAGTAGATAGGAAAGCCAGCAAAGGCAGGAACTTC
GGTTTCATGTCCTTAGCAAGCTACTGAGTTTCATGGCACCTATTGACCATACTACAATGAATGATGATGCCAGGA
CAGAACTGTACCGCTCTCTTTTGGCCAGCTCCACCCTCCCGACGAAGGCCACGGGGATTGACATCGCCACCTC
CGACACCCAGTGGGCGCCTTGGCTGGTGCGGCTGCTGGTCCAGATGGAGGAAACCAGTGACTTTATGGGGCTGAG
CTAGTAGGGAAGCCCCCTGGAAGATGCTGCGTTCCGAACCTGTGCCTAATACACGCAAGGGCGCTGTCCCGCCCA
ACCCGCTTTAAACGCCACAAATAAAGAGCATTGTTACCGCCAAAAAAAAAAAAA

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FIGURE 4839

MAGPQPLALQLEQLLNPRPSEADPEADPEEATAARVIDRFDEGEDGEGDFLVVGSIRKLASASLLDTDKRYCGKT
TSRKAWNEDHWEQTLPGSSDEEISDEEGSGDEDSEGLGLEEYDEDDLGAEEQECGDHRESKKSRSKSAKTPGFS
VQSISDFEKFTKGMDLGSSEEEDEESGMEEGDDAEDSQGESEEDRAGDRNSEDGVMFTFSSVKVSEEEVEKGR
AVKNQIALWDQLLEGRIKLQKALLTTNQLPQPDVFPLFKDKGGPEFSSALKNSHKALKALLRSLVGLQEELLFQY
PDTRYLVDTGTPNAGSEEISSEDELVEEKKQRRRVPAKRKLEMEDYPSFMAKRFADFTVYRNRTLQKWHDKTK
LASGKLGKGFAGAFERSILTQIDHILMDKERLLRRTQTKRSVYRVLGKPEPAAQPVPESLPGEPEILPQAPANAH
KDLDEEIFDDDDFYHQLLRELIERKTSSLDPNQVAMGRQWLAIQKLRSKIHKKVDRKASKGRKLRFHVLSKLLS
FMAPIDHTTMNDARTELYRSLFGQLHPPDEGHGD

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FIGURE 4840

CTTCCCGCCGCTGACCTGGCCCCGCCGCTTTCCAGTCTGGCCGGGCGGGCCTGAAGCACGGCGCTCGGGCGT
GGGACCGTGTTACACCCCTTTCCAGAAATTCTTGGCTGGTAACCGCGAAACCGACTGGAGCAGGAGCTGGGAGAA
CTGGAGAAAACTGCTCTAATCTCACTTGACTCCAGCTAGGAGCTGATGCTGCATCGTAATAACATTTGCAGAGCG
CTTTCACAGGCGCTGGAGTGACTTGTCTGAGATTCTCCAGAACTGAGCCCTTTGTTGGAACCATACCCAGCCC
ATGGTCCCATGACTAGGTGGATAGTACTCCTTGTACCTCCTGCAACCCAGAACCCTGGCTGACCACCTTTGAAGGA
GGATGCTCCAGCAGGTCAATGGCCACAATCCGGGGTCTGATGGCCAAGCCAGGGAGTACCTCAGAGAAGACCTGC
AGGAGTTCCTGGGTGGGGAGGTCTGCTGTACAACTGGATGACCTCACCAGGGTGAATCCTGTGACACTAGAGA
CAGTCTGAGGTGCTGACAGGCCCGGTACATGGCAGACACATTCTACACCAATGCTGGCTGCACCCTGGTAGCCT
TGAACCCCTTCAAGCCTGTTCTCAGCTCTACTCGCCGAGCTAATGAGAGAGTACCATGCTGCGCCTCAGCCCC
AGAACTGAAGCCCCATGTGTTCACTGTGGGTGAACAGACCTACAGGAATGTCAAGAGCCTGATTGAACCAGTCA
ACCAGTCTATTGTTGTGCTAGTGGAGAGAGTGGTGTGGAAGACATGGACGTCTCGCTGCCTAATGAAGTTCTATG
CTGTGGTGGCCACCTCACCTGCATCTTGGGAGAGCCACAAGATTGCAGAGAGGATAGAACAGAGGATCCTGAACCT
CCAACCTGTGATGGAAGCTTTTGGGAATGCGTGTACACTGAGGAATAACAACAGCAGTCGCTTTGGGAAGTTCA
TCCAGCTCCAGCTGAACAGGGCTCAGCAAATGACTGGAGCCGCGAGTCCAGACCTACCTCCTAGAGAAAACCTCGAG
TGGCCTGCCAGGCTTCCAGTGAGAGGAACCTCCACATCTTCTATCAGATTTGCAAAGGAGCCAGTGAGGACGAGA
GGCTCCAGTGGCACCTTCTGAGGGAGCTGCCTTCTCCTGGCTGCCCAACCCAGAGAGGAGCTTAGAAGAGGATT
GTTTTGAGGTGACCAGAGAGGCCATGCTCCATTTGGGCATTGACACCCCTACCCAGAACAAACATCTTTAAGGTCC
TAGCTGGACTGCTGCACCTTGGCAATATCCAGTTTGTCTGCCTCCGAGGATGAAGCCCAGCCCTGCCAGCCGATGG
ATGATGCCAAGTACTCTGTGAGGACGGCAGCCTCGCTGCTGGGGCTCCCAGAGGACGTGCTGCTGGAGATGGTGC
AGATTAGAACCATCAGGGCAGGCAGACAGCAGCAGGTGTTCCGGAAGCCCTGCGCCCGAGCCGAGTGTGACACCC
GTAGAGACTGCCTGGCCAACTGATCTATGCGCGGTTGTTTGACTGGCTGGTATCAGTGATCAACAGCAGCATCT
GTGCAGACACCGACTCGTGGACCACTTTTCATAGGCCTGCTGGATGTGTATGGATTTGAATCATTTCCTGACAACA
GTCTGGAACAGTTGTGCATCAACTACGCCAATGAGAAGCTGCAGCTGGAGGCCTGTGGCCTCGTGAGACCATCC
ATATCAGTGCTGCTGGCTTCCCCATCCGGGTCTCTCACCAGAACTTTGTAGAACGATACAAGTTACTAAGAAGGC
TTCATCCTTGCACATCCTCTGGCCCCGACAGCCCATATCCTGCCAAAGGGCTCCCTGAATGGTGTCCACACAGCG
AGGAAGCCACGCTTGAACCTCTCATCCAGGACATTCTCCACACTCTGCCGGTCTTAATCAGGCAGCAGCCATAA
CTGGTGACTCGGCTGAGGCCATGCCAGCCCCATGCACTGTGGCAGGACCAAGGTGTTTCATGACTGACTCTATGC
TGGAGCTTCTGGAATGTGGGCGTGCCCGGGTGTGGAGCAGTGTGCCCGCTGCATCCAGGGTGGCTGGAGGCGAC
ACCGGCACCGAGAGCAGGAGCGGCAGTGGCGGGCGTGCATGCTCATCCAGGCAGCCATTGTTTCTGGTTAACTC
GGAAACACATCCAGAGGCTGCATGCAGCTGCCACAGTCAAGCGTGCATGGCAGAGTGGAGAATCAGAATGG
CCTGCCTTGCTGCTAAAGAGCTGGATGGTGTGGAAGAAAAACACTTCTCTCAAGCTCCCTGTTCCCTGAGCACCT
CGCCGCTGCAGACCAGGCTCCTGGAGGCAATAATCCGCCTCTGGCCCCCTGGGACTGGTCTTGCCCAATACGGCTA
TGGGTGTAGGCAGCTTTTCAGAGGAAATTAGTGGTCTGGGCTTGCCCTCAGCTCCCCAGGGGACGCCCCAGTAGCT
ACACTGTCCAGACAGCACAAGACCAGGCTGGTGTACGTCCATCCGAGCGCTGCCTCAGGGATCGATAAAGTTTC
ACTGCAGAAAGTCTCCACTGCGGTATGCTGACATCTGCCCTGAACCTTCACCTTACAGCATTACAGGCTTTAATC
AGATTCTGCTGGAAGACACAGGCTGATCCACGTGACCTCTTCTGCCTTCACTGGGCTGGGGTGATCCTTGGTGC
CTTTGTTTCCACAAGGCCTTTTCTGCCCCCTGCCTTGCCAAAGACATTTAATCAGCACACAGCTGCCAGACTAT
TCCCACAGTGCTCCAAATGCACATGAACAACAGTGACGGCTCCAGCCTTCGACCCAGAGCCCCGTGCCAGTGCG
TCAGTGGGCTGGGGTTCAGGCTACATCAAGCACTGATGGTGTGAGGGCTGGTAGTTACCAAAATCAGGGTTAAG
AAACATCAGGGCCACATTTCACTACCTTCACAGATCAAACTCAGCAGCAGTCATGCTGTCTACTACACTGG
GGATCCCAATTCACATAAGCACTTTTGGGAAGAAAAAGCCAAAGTTGGCCTAAAATTGGCGCTGGAATTTGGGC
TGGGAAAAATCTTGTGGTTATTTCTTTAAAAAGGAACAAAACCTTAGTATTTAATTAGTTGATTATTTAATGT
AATTTCAACAATTAATTATGAATAATGCAATGT

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FIGURE 4841

ATGGACATGGCGGATGAGCCACTCAATGGAAGCCACACATGGCTATCCATTCCATTGACCTCAATGGCTCTGTG
GTGTCAACCAACACCTCAAACCAGACAGAGCCGTACTATGACCTGACAAGCAATGCAGTCCTCACATTCATCTAT
TTTGTGGTCTGCATCATTGGGTTGTGTGGCAACACACTTGTCAATTTATGTCATCCTCCGCTATGCCAAGATGAAG
ACCATCACCAACATTTACATCCTCAACCTGGCCATCGCAGATGAGCTCTTCATGCTGGGTCTGCCTTTCTTGGCT
ATGCAGGTGGCTCTGGTCCACTGGCCCTTTGGCAAGGCCATTTGCCGGGTGGTCATGACTGTGGATGGCATCAAT
CAGTTCACCAGCATCTTCTGCCTGACAGTCATGAGCATCGACCGATACCTGGCTGTGGTCCACCCCATCAAGTCG
GCCAAGTGGAGGAGACCCCGGACGGCCAAGATGATCACCATGGCTGTGTGGGGAGTCTCTCTGCTGGTCATCTTG
CCCATCATGATATATGCTGGGCTCCGGAGCAACCAGTGGGGGAGAAGCAGCTGCACCATCAACTGGCCAGGTGAA
TCTGGGGCTTGGTACACAGGGTTCATCATCTACACTTTCAATCTGGGGTTCCTGGTACCCCTCACCATCATCTGT
CTTTGCTACCTGTTTATTATCATCAAGGTGAAGTCCTCTGGAATCCGAGTGGGCTCCTCTAAGAGGAAGAAGTCT
GAGAAGAAGGTCACCCGAATGGTGTCCATCGTGGTGGCTGTCTTCATCTTCTGCTGGCTTCCCTTCTACATATTC
AACGTTTCTTCCGTCTCCATGGCCATCAGCCCCACCCAGCCCTTAAAGGCATGTTTGACTTTGTGGTGGTCCTC
ACCTATGCTAACAGCTGTGCCAACCTATCCTATATGCCTTCTTGTCTGACAACTTCAAGAAGAGCTTCCAGAAT
GTCCTCTGCTTGGTCAAGGTGAGCGGCACAGATGATGGGGAGCGGAGTGACAGTAAGCAGGACAAATCCCGGCTG
AATGAGACCACGGAGACCCAGAGGACCCTCCTCAATGGAGACCTCCAAACCAGTATCTGA

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FIGURE 4842

MDMADEPLNGSHTWLSIPFDLNGSVVSTNTSNQTEPYDLTSTNAVLTFIYFVVCIIIGLCGNTLVIYVILRYAKMK
TITNIYILNLAIADELFMLGLPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSIDRYLAVVHPIKS
AKWRRPRTAKMITMAVWGVSLLVILPIMIIYAGLRSNQWGRSSCTINWPGESGAWYTGFI IYTFILGFLVPLTIIC
LCYLFII I KVKSSGIRVGSSKRKKSEKKVTRMVSIVVAVFIFCWLPFYIFNVSSVSMAISPTPALKGMFDFVVVL
TYANSCANPILYAFLSDNFKKSFQNVLCLVKVS GTDDGERSDSKQDKSRLNETTETQRTLLNGDLQTSI

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FIGURE 4843

CAGCGAGCCGCGAGCGCAATCCCGGCGCTCGCCCAAGGACCCTGGAAGCTACCGTTACCCCGCCGGCAGCGTGGGC
GCCATGAGCAGCTCGGGACTGAATTCGGAGAAGGTAGCTGCTCTGATACAGAACTGAATTCCGACCCCCAGTTC
GTACTTGCCCAAGATGTCGGGACCACCCACGACCTGCTGGACATCTGTCTGAAGCGGGCCACGGTGACGCGCGC
CAGCATGTGTTCCAGCACGCCGTGCCCCAGGAGGGCAAGCCAATCACCAACCAGAAGAGCTCAGGGCGATGCTGG
ATCTTTTCTTGTCTGAATGTTATGAGGCTTCCATTTCATGAAAAAGTTAAATATTGAAGAATTTGAGTTTAGCCAA
TCTTACCTGTTTTTTTTGGGACAAGGTTGAACGCTGTTATTTCTTCTTGAGTGCTTTTGTGGACACAGCCCAGAGA
AAGGAGCCTGAGGATGGGAGGCTGGTGCACTTTTTGCTTATGAACCCTGCAAATGATGGTGGCCAATGGGATATG
CTTGTTAATATTGTTGAAAAATATGGTGTTATCCCTAAGAAATGCTTCCCTGAATCTTATACAACAGAGGCAACC
AGAAGGATGAATGATATTCTGAATCACAGATGAGAGAATTCTGTATACGACTGCGGAACCTGGTACACAGTGGA
GCAACCAAGGAGAAATCTCGGCCACACAGGACGTCATGATGGAGGAGATATTCCGAGTGGTGTGCATCTGTTTG
GGTAATCCACCAGAGACATTACCTGGGAATATCGAGACAAAAGATAAAAAATTATCAGAAAATTGGCCCCATAACA
CCCTTGGAGTTTTACAGGGAACATGTCAAGCCACTCTTCAATATGGAAGATAAGATTTGTTTAGTGAATGACCTT
AGGCCCCAGCACAAGTACAACAACTTTACACAGTGGAATACTTAAGCAATATGGTTGGTGGGAGAAAACTCTA
TACAACAACCAGCCCATTGACTTCCTGAAAAAGATGGTTGCTGCCTCCATCAAAGATGGAGAGGCTGTGTGGTTT
GGCTGTGATGTTGGAAAACACTTCAATAGCAAGCTGGGCCTCAGTGACATGAATCTCTATGACCATGAGTTAGTG
TTTGGTGTCTCCTTGAAGAACATGAATAAAGCGGAGAGGCTGACTTTTGGTGAGTCACTTATGACCCACGCCATG
ACCTTCACTGCTGTCTCAGAGAAGGATGATCAGGATGGTGCTTTCACAAAATGGAGAGTGGAGAATTCATGGGGT
GAAGACCATGGCCACAAAGGTTACCTGTGCATGACAGATGAGTGGTTCTCTGAGTATGTCTACGAAGTGGTGGTG
GACAGGAAGCATGTCCCTGAAGAGGTGCTAGCTGTGTTAGAGCAGGAACCCATTATCCTGCCAGCATGGGACCCC
ATGGGAGCTTTGGCTGAGTTGATACTGCCCTCCAGCTCTTTCCTCCTCCATGGAACCTGACGTAGCTGCAAAGGA
CAGATCCAGGGACTGAAGCCAAAGTTATGCAAGGGACTGTGTGTTGCCACAGGACACAGTCAGATTTCCAGTCTC
CACCAGGAACCTCTTCAGAAAGTGTGCTTTATGCTGAAACAGAATACTGTTAAAGGAAAAAAGAGGGGGGAAG
ATCAGGTCATACTATCTACTCTCCTCATCTCTAACAGCTCAGGATCTCTTAGCATTTTAATTAGATGTAATTGTT
TGTCTTTAACTGTCAAAAAGTTTGGTTCTGTGTCTGTGTTTAAATAAGACGAGAGGACGAGCGATTGAGGTGTAT
GGAGAGAAAACAGACCTAATGCTCCTTGTTCCTAGAGTAGAGTGGAGGGAGGGTGGCCTAAGAGTTGAGCTCTCG
GAACTGCATGCTGCTGGACAGTATCACTGTCTTTCCTAGATGGCAGTCACTGAATTC

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FIGURE 4844

MSSSGLNSEKVAALIQKLNSDPQFVLAQNVGTTHDLLDICKRATVQRAQHVFQHAVPQEGKPITNQKSSGRCWI
FSCLVNMRPFPMMKKLNIEEFESQSYLFFWDKVERCYFFLSAFVDTAQRKEPEDGRLVQFLLMNPANDGGQWDM
VNIVEKYGVIPKKCFPESYTTEATRRMNDILNHKMREFCIRLRNLVHSGATKGEISATQDVMMEEIFRVVCICLG
NPPETFTWEYRDKDKNYQKIGPITPLEFYREHVKPLFNMEDKICLVNDFRPQHKYNKLYTVEYLSNMVGGRTLY
NNQPIDFLKKMVAASIKDGEAVWFGCDVGKHFNSKLGLSDMNLYDHELVFGVSLKNMNKAERLTFGESLMTHAMT
FTAVSEKDDQDGAFTKWRVENSWGEDHGHKGYLCMTDEWFSEYVYEVVDRKHVPEEVLAVLEQEP IILPAWDPM
GALAE

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FIGURE 4845

G TAGTCTGAGCGCTACCCGGTTGCTGCTGCCCCAAGGACCGCGGAGTCGGACGCAGGCAGACCATGTGGAACCTGG
TGAGCTGGGTGGCCTTAACAGCAGGGCTGGTGGCTGGAACGCGGTGCCAGATGGTCAGTTCTGCCCTGTGGCCT
GCTGCCCTGGACCCCGGAGGAGCCAGCTACAGCTGCTGCCGTCCCCCTTCTGGACAAATGGCCCCACAACACTGAGCA
GGCATCTGGGTGGCCCCCTGCCAGGTTGATGCCCCACTGCTCTGCCGGCCACTCCTGCATCTTTACCGTCTCAGGGA
CTTCCAGTTGCTGCCCCCTTCCCAGAGGCCGTGGCATGCGGGGATGGCCATCACTGCTGCCCACGGGGCTTCCACT
GCAGTGCAGACGGGCGATCCTGCTTCCAAAGATCAGGTAACAACCTCCGTGGGTGCCATCCAGTGCCCTGATAGTC
AGTTCGAATGCCCGGACTTCTCCACGTGCTGTGTTATGGTCGATGGCTCCTGGGGGTGCTGCCCCATGCCCCAGG
CTTCTGCTGTGAAGACAGGGGTGCACTGCTGTCCGCACGGTGCCCTTCTGCGACCTGGTTTACACCCGCTGCATCA
CACCCACGGGCACCCACCCCCCTGGCAAAGAAGCTCCCTGCCCAGAGGACTAACAGGGCAGTGCCCTTGTCCAGCT
CGGTCAATGTGTCCGGACGCACGGTCCCGGTGCCCTGATGGTTCTACCTGCTGTGAGCTGCCCAGTGGAAGTATG
GCTGCTGCCCCAATGCCCAACGCCACCTGCTGCTCCGATCACCTGCACTGCTGCCCCAAGACACTGTGTGTGACC
TGATCCAGAGTAAGTGCCCTCTCCAAGGAGAAGCTACCACGGACCTCCTCACTAAGCTGCCTGCGCACACAGTGG
GGGATGTGAAATGTGACATGGAGGTGAGCTGCCCAGATGGCTATACCTGCTGCCGTCTACAGTCGGGGGCTGGG
GCTGCTGCCCTTTTACCCAGGCTGTGTGCTGTGAGGACCACATACACTGCTGTCCCGCGGGGTTTACGTGTGACA
CGCAGAAGGGTACCTGTGAACAGGGGGCCCCACAGGTGCCCTGGATGGAGAAGGCCCCAGCTCACCTCAGCCTGC
CAGACCCACAAGCCTTGAAGAGAGATGTCCCTGTGATAATGTCAGCAGCTGTCCCTCCTCCGATACCTGCTGCC
AACTCACGTCTGGGGAGTGGGGCTGCTGTCCAATCCCAGAGGCTGTCTGCTGCTCGGACCACCAGCACTGCTGCC
CCCAGGGCTACACGTGTGTAGCTGAGGGGCAGTGTGAGCGAGGAAGCGAGATCGTGGCTGGACTGGAGAAGATGC
CTGCCCCGCGGGCTTCCCTATCCCACCCAGAGACATCGGCTGTGACCAGCACACCAGCTGCCCGGTGGGGCAGA
CCTGCTGCCCGAGCCTGGGTGGGAGCTGGGCCTGCTGCCAGTTGCCCCATGCTGTGTGCTGCGAGGATCGCCAGC
ACTGCTGCCCGGCTGGCTACACCTGCAACGTGAAGGCTCGATCCTGCGAGAAGGAAGTGGTCTCTGCCCAGCCTG
CCACCTTCCTGGCCCGTAGCCCTCACGTGGGTGTGAAGGACGTGGAGTGTGGGGAAGGACACTTCTGCCATGATA
ACCAGACCTGCTGCCGAGACAACCGACAGGGCTGGGCCTGCTGTCCCTACCGCCAGGGCGTCTGTTGTGCTGATC
GGCGCCACTGCTGTCTGCTGGCTTCCGCTGCGCAGCCAGGGGTACCAAGTGTGTTGCGCAGGGAGGCCCCGCGCT
GGGACGCCCCTTTGAGGGACCCAGCCTTGAGACAGCTGCTGTGAGGGGACAGTACTGAAGACTCTGCAGCCCTCGG
GACCCCACTCGGAGGGTGCCCTCTGCTCAGGCCTCCCTAGCACCTCCCCCTAACCAAATTCTCCCTGGACCCCAT
TCTGAGCTCCCCATCACCATGGGAGGTGGGGCCTCAATCTAAGGCCTTCCCTGTGAGAAGGGGGTTGTGGCAAAA
GCCACATTACAAGCTGCCATCCCCCTCCCCGTTTCAGTGGAACCTGTGGCCAGGTGCTTTTCCCTATCCACAGGGG
TGTTTGTGTGTGTGCGCGTGTGCGTTTCAATAAAGTTTGTACACTTTCAAAAAAAAAAAAAAAAAAAAAAAAAA
AAA

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FIGURE 4846

MWTLVSWVALTAGLVAGTRCPDGQFCPVACCLDPGGASYSCCRPLLDKWPTTLSRHLGGPCQVDAHCSAGHSCIF
TVSGTSSCCPFPEAVACGDGHHCCPRGFHCSADGRSCFQSRGNNVSGAIQCPDSQFECPDFSTCCVMVDGSWGCC
PMPQASCCEDRVHCCPHGAFCDLVHTRCITPTGTHPLAKKLPARTNRAVALSSVMCPDARSRCPDGSTCCCELP
SGKYGCCPMFNATCCSDHLHCCPQDTVCDLIQSKCLSKENATTDLLTKLPAHTVGDVKCDMEVSCPDGYTCCRLQ
SGAWGCCPFTQAVCCEDHIHCCPAGFTCDTQKGTCEQGPHQVPWMEKAPAHLSLPDPQALKRDVPCDNVSSCPSS
DTCCQLTSGEWGCCPIPEAVCCSDHQHCCPQGYTCVAEGQCQRGSEIVAGLEKMPARRASLSHPRDIGCDQHTSC
PVGQTCCPSLGGSWACCQLPHAVCCEDRQHCCPAGYTCNVKARSCEKEVVSAQPATFLARSPHVGVKDVECGEGH
FCHDNQTCCRDNRQGWACCPYRQGVCCADRRHCCPAGFRCAARGTKCLRREAPRWDAPLRDPALRQLL

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FIGURE 4847

GGCTAGGTGCGCTGCGAGCGCGCGGAGCCACGAGGGCGGACGGACGTAATGGGCCCGCCTGGCCCTGGGCGCCGC
GCCGCACGAGCACCAGCCTAGAGCCAGGACTGAAGCTTCAAGATGGCTGACCAGGACCCCTGCGGGCATCAGCCCC
CTCCAGCAAATGGTGGCCTCAGGCACCGGGGCTGTGGTTACCTCTCTCTTCATGACACCCCTGGACGTGGTGAAG
GTTGCGCTGCAGTCTCAGCGGCCCTCCATGGCCAGCGAGCTGATGCCTTCCTCCAGACTGTGGAGCCTCTCCTAT
ACCAAATGGAAGTGCCTCCTGTATTGCAATGGTGTCTGGAGCCTCTGTACCTGTGCCCAAATGGTGGCCGCTGT
GCCACCTGGTTTCAAGACCCTACCCGCTTCACTGGCACCATGGATGCCTTCGTGAAGATCGTGAGGCACGAGGGC
ACCAGGACCCTCTGGAGCGGCCTCCCCGCCACCCTGGTGATGACTGTGCCAGCTACCGCCATCTACTTCACTGCC
TATGACCAACTGAAGGCCTTCCTGTGTGGTCGAGCCCTGACCTCTGACCTCTACGCACCCATGGTGGCTGGCGCG
CTGGCCCGCCTGGGCACCGTGACTGTGATCAGCCCCCTGGAGCTTATGCGGACAAAGCTGCAGGCTCAGCATGTG
TCGTACCGGGAGCTGGGTGCCTGTGTTGAACTGCAGTGGCTCAGGGTGGCTGGCGCTCACTGTGGCTGGGCTGG
GGCCCCACTGCCCTTCGAGATGTGCCCTTCTCAGCCCTGTACTGGTTCAACTATGAGCTGGTGAAGAGCTGGCTC
AATGGGTTCAGGCCGAAGGACCAGACTTCTGTGGGCATGAGCTTTGTGGCTGGTGGCATCTCAGGGACGGTGGCT
GCAGTGCTGACTCTACCCTTTGACGTGGTAAAGACCCAACGCCAGGTTCGCTCTGGGAGCGATGGAGGCTGTGAGA
GTGAACCCCTGCATGTGGACTCCACCTGGCTGCTGCTGCGGAGGATCCGGGCCGAGTCGGGCACCAAGGGACTC
TTTGCAGGCTTCCTTCCTCGGATCATCAAGGCTGCCCCCTCCTGTGCCATCATGATCAGCACCTATGAGTTCGGC
AAAAGCTTCTTCCAGAGGCTGAACCAGGACCGGCTTCTGGGCGGCTGAAGGGGCAAGGAGGCAAGGACCCCGTC
TCTCCACGGATGGGGAGAGGGCAGGAGGAGACCCAGCCAAGTGCCTTTTCCTCAGCACTGAGGGAGGGGGCTTG
TTTCCCTTCCCTCCCGGCGACAAGCTCCAGGGCAGGGCTGTCCCTCTGGGCGGGCCAGCACTTCCTCAGACACAA
CTTCTTCCTGCTGCTCCAGTCGTGGGATCATCACTTACCCACCCCCCAAGTTCAGACCAAATCTTCCAGCTGC
CCCCTCGTGTTTCCCTGTGTTTGCTGTAGCTGGGCATGTCTCCAGGAACCAAGAAGCCCTCAGCCTGGTGTAGT
CTCCCTGACCCTTGTTAATTCTTAAGTCTAAAGATGATGAACCTCAAAAAAAAAA

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FIGURE 4848

MADQDPAGISPLQQMVASGTGAVVTSLFMTPLDVVKVRLQSQRPMSASELMPSSRLWSLSYTKWKCLLYCNGVLE
PLYLCPNGARCATWFQDPTRFTGTMDAFVKIVRHEGTRTLWSGLPATLVMTVPATAIYFTAYDQLKAFLCGRALT
SDLYAPMVAGALARLGTVTVISPLELMRTKLQAQHVSYRELGACVRTAVAQGGWRSLWLGWGPTALRDVPFSALY
WFNYELVKSWLNGFRPKDQTSVGMSFVAGGISGTVA AVLTLFDDVVKTORQVALGAMEAVRVNPLHVDSTWLLLR
RIRAESGKGLFAGFLPRI IKAAPSCAIMISTYEFGKSFFQRLNQDRLLGG

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FIGURE 4849

GGAGCCGTCACCCCGGGCGGGGACCCAGCGCAGGCAACTCCGCGCGGGCGGCCGAGGGAGGGAGCGAGCGG
GCGGGCGGGCAAGCCAGACAGCTGGGCCGGAGCAGCCGCGGGCGCCCGAGGGGCCGAGCGAGATTGTAAACCATG
GCTGTGTGGATACAAGCTCAGCAGCTCCAAGGAGAAGCCCTTCATCAGATGCAAGCGTTATATGGCCAGCATTTT
CCCATTGAGGTGCGGCATTATTTATCCCAGTGGATTGAAAGCCAAGCATGGGACTCAGTAGATCTTGATAATCCA
CAGGAGAACATTAAAGGCCACCCAGCTCCTGGAGGGCCTGGTGCAGGAGCTGCAGAAGAAGGCAGAGCACCAGGTG
GGGGAAGATGGGTTTTTACTGAAGATCAAGCTGGGGCACTATGCCACACAGCTCCAGAACACGTATGACCGCTGC
CCCATGGAGCTGGTCCGCTGCATCCGCCATATATTGTACAATGAACAGAGGTTGGTCCGAGAAGCCAACAATGGT
AGCTCTCCAGCTGGAAGCCTTGCTGATGCCATGTCCCAGAAACACCTCCAGATCAACCAGACGTTTGAGGAGCTG
CGACTGGTCACGCAGGACACAGAGAATGAGTTAAAAAAGCTGCAGCAGACTCAGGAGTACTTCATCATCCAGTAC
CAGGAGAGCCTGAGGATCCAAGCTCAGTTTGGCCCGCTGGCCAGCTGAGCCCCCAGGAGCGTCTGAGCCGGGAG
ACGGCCCTCCAGCAGAAGCAGGTGTCTCTGGAGGCCTGGTTGCAGCGTGAGGCACAGACACTGCAGCAGTACCGC
GTGGAGCTGGCCGAGAAGCACCAGAAGACCCTGCAGCTGCTGCGGAAGCAGCAGACCATCATCTGGATGACGAG
CTGATCCAGTGGAAGCGGCGGCAGCAGCTGGCCGGGAACGGCGGGCCCCCGAGGGCAGCCTGGACGTGCTACAG
TCCTGGTGTGAGAAGTTGGCCGAGATCATCTGGCAGAACCGGCAGAGATCCGCAGGGCTGAGCACCTCTGCCAG
CAGCTGCCCCATCCCCGGCCAGTGGAGGAGATGCTGGCCGAGGTCAACGCCACCATCACGGACATTATCTCAGCC
CTGGTGACCAGCACATTTCATTGAGAAGCAGCCTCCTCAGGTCTGAAGACCCAGACCAAGTTTGCAGCCACC
GTACGCCTGCTGGTGGGCGGGAAGCTGAACGTGCACATGAATCCCCCCCAGGTGAAGGCCACCATCATCAGTGAG
CAGCAGGCCAAGTCTCTGCTTAAAAATGAGAACACCCGCAAXXXXXXXXXXXTGGTGAGATCCTGAACAACCTGCTGC
GTGATGGAGTACCACCAAGCCACGGGCACCCCTCAXX
XX
XX
XX
GGCCGCAGCTGTGTGAGGCGCTCAACATGAAATTCAGGCCGAAGTGACAGAGCAACCGGGCCTGACCAAGGAGA
ACCTCGTGTTCCTGGCGCAGAACTGTTCAACAACAGCAGCAGCCACCTGGAGGACTACAGTGGCCTGTCCGTGT
CCTGGTCCCAGTTCAACAGGGAGAATTTACCAGGACGGAATTACACTTTCTGGCAATGGTTTGACGGTGTGATGG
AAGTGTAAAAAAACATCTCAAGCCTCATTGGAATGATGGGGCCATTTTGGGGTTTGTAAACAAGCAACAGGCC
ATGACCTACTCATTAACAAGCCAGATGGGACCTTCCTCCTGAGATTCACTGACTCAGAAATTGGCGGCATCACCA
TTGCTTGGAAGTTTGATTCTCAGGAAAGAATGTTTGGAAATCTGATGCCTTTTACCACCAGAGACTTCTCCATT
GGTCCCTAGCCGACCGCTTGGGAGACTTGAATTACCTTATCTACGTGTTTCTGATCGGCCAAAAGATGAAGTAT
ACTCCAAATACTACACACCAGTTCCCTGCGAGTCTGCTACTGCTAAAGCTGTTGATGGATACGTGAAGCCACAGA
TCAAGCAAGTGGTCCCTGAGTTTGTGAACGCATCTGCAGATGCCGGGGCGGCAGCGCCACGTACATGGACCAGG
CCCCCTCCCCAGCTGTGTGTCCCCAGGCTCACTATAACATGTACCCACAGAACCTGACTCAGTCCCTTGACACCG
ATGGGGACTTCGATCTGGAGGACACAATGGACGTAGCGCGGCGTGTGGAGGAGCTCCTGGGCCGGCCAATGGACA
GTCAGTGGATCCCGCACGCACAATCGTGACCCCGCGACCTCTCCATCTTCAGCTTCTTCATCTTCACCAGAGGAA
TCACTCTGTGGATGTTTTAATTCATGAATCGCTTCTCTTTGAAACAATACTCATAATGTGAAGTGTTAATAC
TAGTTGTGACCTTAGTGTCTGTGTCATGGTGGCACCAGCGAAGGGAGTGCAGATATGTGTTGTGTGTGTGTGT
GTGTGTGTGTGTGTGTGCGTGTTCACGTTATGGTGTTCCTCCTCTCACTGTCTGAGAGTTTAGTTGTAGCAG

A

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FIGURE 4850A

GCGGAGCCGGAGGAGCCGCCGCAAAGATGGAGGAGCCGTCGAGGAGGTGCTGCCGCCGCTGCCGCCGCCGCTGCT
GCCGCCGCCGCCGCCGAAGCCGGAGCTCGAGCCGCAGCGGGGATGCCGTTCTGAGTGCCTGACTGCCTCGCCCCG
AAGGATGGCCTCGGATGGGCATTAGAGGCACGGCGGCCCGGGCTCCCGTCCCGTCCGTCTGTCTGTTATCGTCT
GTCTCTCTTGACATCACCGCAGCTCCACCCCTCCCGTCCCGAGCCCCAACGCCAGCTTCCTGCAAGGCCAGAGC
CGGCATGAACCTCTCCCAACGAGTCGGATGGGATGTCAGGTGCGGAACCATCCTTGAAAATCCTGCCGCCGACTTC
TCTGCACAGCATCCCTGTGACAGTGGAGGTGAAGCCGGTGCTGCCAAGAGCCATGCCAGTTCATGGGGGGTGG
GGGTGGAGGCAGCCCCAGCCCTGTGGAGCTACGGGGGGCTCTGGTGGGCTCTGTGGACCCACACTGCGGGAGCA
GCAACTGCAGCAGGAGCTCCTGGCGCTCAAGCAGCAGCAGCAGCTGCAGAAGCAGCTCCTGTTGCTGAGTTCCA
GAAACAGCATGACCACCTGACAAGGCAGCATGAGGTCCAGCTGCAGAAGCACCTCAAGCAGCAGCAGGAGATGCT
GGCAGCCAAGCAGCAGCAGGAGATGCTGGCAGCCAAGCGGCAGCAGGAGCTGGAGCAGCAGCGGCAGCGGGAGCA
GCAGCGGCAGGAAGAGCTGGAGAAGCAGCGGCTGGAGCAGCAGCTGCTCATCCTGCCGAACAAGGAGAAGAGCAA
AGAGAGTGCCATTGCCAGCACTGAGGTAAAGCTGAGGCTCCAGGAATTCCTCTTGTCGAAGTCAAAGGAGCCAC
ACCAGGCGGCCTCAACCATTCCTCCACAGCACCCCAAAATGCTGGGGAGCCACCATGCTTCTTTGGACCAGAG
TTCCCTCCCGAGAGCGGCCCTGGGACGCCTCCCTCCTACAACTGCCTTTGCCTGGGCCCTACGACAGTCG
AGACGACTTCCCTCCGCAAAACAGCCTCTGAACCCAACCTGAAAGTGCGTTCAAGGCTAAAACAGAAGGTGGC
TGAGCGGAGAAGCAGTCCCTCCTGCGTCGCAAGGATGGGACTGTTATTAGCACCTTTAAGAAGAGAGCTGTTGA
GATCACAGGTGCCGGGCTGGGGCGTCGTCCTGTGTAAACAGCGCACCCGGCTCCGGCCCCAGCTCTCCCAACAG
CTCCACAGCACCATCGCTGAGAATGGCTTTACTGGCTCAGTCCCCAACATCCCCACTGAGATGCTCCCTCAGCA
CCGAGCCCTCCTCTGACAGCTCCCCAACAGTTCAGCCTCTACAGCTCCTTCTCTGCCAACATCTCCCT
AGGGCTGCAGGCCACGGTCACTGTACCAACTCACACCTCACTGCCTCCCCGAAGCTGTGACACAGCAGGAGGC
CGAGAGGCAGGCCCTCCAGTCCCTGCGGCAGGGTGGCACGCTGACCGGCAAGTTCATGAGCACATCCTCTATTCC
TGGCTGCCTGCTGGGCGTGGCACTGGAGGGCGACGGGAGCCCCACGGGCATGCCTCCCTGCTGCAGCATGTGCT
GTTGCTGGAGCAGGCCCGGCAGCAGACCCCTCATTGCTGTGCCACTCCACGGGAGTCCCCACTAGTGACGGG
TGAACGTGTGGCCACCAGCATGCGGACGGTAGGCAAGCTCCCGCGGCATCGGCCCTGAGCCGCACTCAGTCCTC
ACCGCTGCCGCAGAGTCCCCAGGCCCTGCAGCAGCTGGTCATGCAACAACAGCACCAGCAGTTCCTGGAGAAGCA
GAAGCAGCAGCAGCTACAGCTGGGCAAGATCCTACCAAGACAGGGGAGCTGCCAGGCAGCCACCCACCCACCC
TGAGGAGACAGAGGAGGAGCTGACGGAGCAGCAGGAGTCTTGCTGGGGGAGGGAGCCCTGACCATGCCCCAGGAG
GGGCTCCACAGAGAGTGAGAGCACACAGGAAGCCTGGAGGAGGAGGACGAGGAAGAGGATGGGGAGGAGGAGGA
GGATTGCATCCAGGTTAAGGACGAGGAGGGCGAGAGTGGTGCTGAGGAGGGGCGGACTTGAGGAGGCTGGTGCT
TGGATACAAAAAATGTTCTCAGATGCCAGCCGCTGCAGCCTTTGAGGTGTACCAGGCGCCCTCAGCCTGGC
CACTGTGCCCCACAGGCCCTGGGCCGTACCCAGTCCCTCCCTGCTGCCCTGGGGCATGAAGAGCCCCCAGA
CCAGCCCGTCAAGCACCTCTTCAACACAGGTGTGGTCTACGACACGTTTATGCTAAAGCACCAGTGCATGTGCGG
GAACACACACGTGCACCTGAGCATGCTGGCCGGATCCAGAGCATCTGGTCCCGGCTGCAGGAGACAGGCCTGCT
TAGCAAGTGCGAGCGGATCCGAGGTGCGAAAGCCACGCTAGATGAGATCCAGACAGTGCACCTCTGAATACCACAC
CCTGCTCTATGGGACCAGTCCCTCAACCGGCAGAAGCTAGACAGCAAGAAGTTGCTCGGCCCCATCAGCCAGAA
GATGTATGCTGTGCTGCCCTGTGGGGCATCGGGGTGGACAGTGACACCGTGTGGAATGAGATGCACTCCTCCAG
TGCTGTGCGCATGGCAGTGGGCTGCCTGCTGGAGCTGGCCTTCAAGGTGGCTGCAGGAGAGCTCAAGAATGGATT
TGCCATCATCCGGCCCCCAGGACACCACGCGAGGAATCCACAGCCATGGGATTCTGCTTCTTCAACTCTGTAGC
CATCACCGCAAACTCCTACAGCAGAAGTTGAACGTGGGCAAGGTCTCATCGTGGACTGGGACATTACCATGG
CAATGGCACCCAGCAGGCGTTCTATAATGACCCCTCTGTGCTCTACATCTCTCTGCATCGCTATGACAACGGGAA
CTTCTTTCCAGGCTCTGGGGCTCCTGAAGAGGTTGGTGGAGGACCAGGCGTGGGGTACAATGTGAACGTGGCATG
GACAGGAGGTGTGGACCCCCCATTTGAGACGTGGAGTACCTTACAGCCTTCAGGACAGTGGTGTATGCCATTGC
CCACGAGTTCTCACCTGATGTGGTCTAGTCTCCGCCGGGTTTGATGCTGTTGAAGGACATCTGTCTCCTCTGGG
TGGCTACTCTGTACCGCCAGATGTTTGGCCACTTGACCAGGCAGCTGATGACCTGGCAGGGGGCCGGGTGGT
GCTGGCCCTGGAGGGAGGCCATGACTTGACCGCCATCTGTGATGCCTCTGAGGCTTGTGTCTCGGCTCTGCTCAG
TGTAGAGCTGCAGCCCTTGATGAGGCAGTCTTGACGAAAAGCCCAACATCAACGCAGTGGCCACGCTAGAGAA
AGTCATCGAGATCCAGAGCAAACTGGAGCTGTGTGAGAAGTTGCCGCTGGTCTGGGCCGGTCCCTGCGAGA
GGCCAAGCAGGTGAGACCGAGGAGGCCGAGACTGTGAGCGCCATGGCCTTGCTGTGGTGGGGCCGAGCAGGC

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FIGURE 4850B

CCAGGCTGCGGCAGCCCGGGAACACAGCCCCAGGCCGGCAGAGGAGCCCATGGAGCAGGAGCCTGCCCTGTGACG
CCCCGGCCCCCATCCCTCTGGGCTTCACCATTGTGATTTTGTTATTTTTTCTATTAAAAACAAAAAGTCACACA
TTC

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FIGURE 4851

MNSPNESDGMSGREPSLEILPRTSLHSIPVTVEVKPVLPRAMPSSMGGGGGGSPSPVELRGALVGSVDPTLREQQ
LQQELLALKQQQLQKQLLFAEFQKQHDHLTRQHEVQLQKHLKQQQEMLAAKQQQEMLAAKRQQELEQQRQREQQ
RQEELEKQRLEQQLLILRNKEKSKESAIAS TEVKLRLQEFLLSKSKEPTPGGLNHSPLQHPK CWGAH HASLDQSS
PPQSGPPGTPPSYKLPPLPGPYDSRDDFPLRKTASEPNLKVRSRLKQKVAERRSSPLLRRKDGTVIISTFKKRAVEI
TGAGPGASSVCNSAPGSGPSSPNSSHSTIAENGFTGSVPNIPTLEPQHRALPLDSSPNQFSLYTSPSLPNISLG
LQATVTVTNSHLTASPKLSTQQEAERQALQSLRQGGTLTGKFMSTSSIPGCLLGVALEGDGSPHGHASLLQHVL
LEQARQQSTLI AVPLHGQSPLVTGERVATSMRTVGKLP RHRPLSRTQSSPLPQSPQALQQLVMQQQHQQFLEKQK
QQQLQLGKILTKTGELPRQPTTHPEETEEELTEQQEVLLGEGALTMPREGSTESESTQEDLEEEDEEEDGEEED
CIQVKDEEGESGAEEGPDLEEPGAGYKKLFSDAQPLQPLQVYQAPLSLATVPHQALGRTQSSPAAPGGMKSPPDQ
PVKHLFTTG VVYDTFMLKHQCMCGNTHVHPEHAGRIQSIWSRLQETGLLSKCERIRGRKATLDEIQT VHSEYHTL
LYGTSPLNRQKLD SKLLGPISQKMYAVLPCGGIGVSDTVWNEMHSSSAVRMAVGCLLELAFKVAAGELKNGFA
IIRPPGHAAEESTAMGFCFFNSVAITAKLLQKLN VGKVLIVDWDIHHGNGTQQAFYNDPSVLYISLHRYDNGNF
FPGSGAPEEVGGGPVGYNVNVAVTGGVDPPIGDVEYLTAFTVVMPIAHEFSPDVVLVSAGFDAVEGHLSP LGG
YSVTARCFGHLTRQLMTLAGGRVVLAL EGGHDLTAICDASEACVSALLSVELQPLDEAVLQQKPNINAVATLEKV
IEIQSKHWSCVQKFAAGLGRSLREAQAGETEEAETVSAMALLSVGAEQAQAAAAREHSPRAEEPMEQEPAL

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FIGURE 4852

CGGAGGAGAGCGCAGGAGGAAACAGTACCGGCTGGAGGCCGGTCTTGACAGGAGCGGGGGACTGCTGGGGGCGGGG
CTTGGTGGTGACTGCTGGCGGGGCGGGGCCTGGGGCTCAGAGGGGTGGGCTTTGGAGATCAGAGGGTCGACGCTG
CTTCGTTGCCTGGACTCTGGTTTCCGCCCTGGAGCAAGCCGGGGCCTGGTCGGCAGCTGGGCCGCC**ATGG**AGTCC
ACGCTGGGCGCGGGCATCGTGATAGCCGAGGCGCTACAGAACCAGCTAGCCTGGCTGGAGAACGTGTGGCTCTGG
ATCACCTTTCTGGGCGATCCCAAGATCCTCTTTCTGTTCTACTTCCCCGCGGCCCTACTACGCCTCCCGCCGTGTG
GGCATCGCGGTGCTCTGGATCAGCCTCATCACCGAGTGGCTCAACCTCATCTTCAAGTGGTTTCTTTTTGGAGAC
AGGCCCTTTTGGTGGGTCCATGAGTCTGGTTACTACAGCCAGGCTCCAGCCCAGGTTACCCAGTTCCCCTCTTCT
TGTGAGACTGGTCCAGGCAGCCCTTCTGGACACTGCATGATCACAGGAGCAGCCCTCTGGCCCATAAATGACGGCC
CTGTCTTCGCAGGTGGCCACTCGGGCCCGCAGCCGCTGGGTAAGGGTGATGCCTAGCCTGGCTTATTGCACCTTC
CTTTTGGCGGTTGGCTTGTCGCGAATCTTCATCTTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACT
GGCGCTGTCTGGGCTGGCTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCA
CTGGCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCCCTCTTTACACTGGGCCTGGATCTTTCTTGGTCCATC
AGCCTAGCCTTCAAGTGGTGTGAGCGGCCCTGAGTGGATACACGTGGATAGCCGGCCCTTTGCCTCCCTGAGCCGT
GACTCAGGGGCTGCCCTGGGCCTGGGCATTGCCTTGCACTCTCCCTGCTATGCCCAGGTGCGTCGGGCACAGCTG
GGAAATGGCCAGAAGATAGCCTGCCTTGTGCTGGCCATGGGGCTGCTGGGGCCCCCTGGACTGGCTGGGGCCACCC
CCTCAGATCAGCCTCTTCTACATTTTCAATTTCTCAAGTACACCCTCTGGCCATGCCTAGTCTTGCCCTCGTG
CCCTGGGCAGTGCACATGTTCAAGTGGCCAGGAAGCACCGCCCATCCACTCTTCT**TGAC**TTCTTGTGTGCCTCCCT
TTCTTTCCCTCCCAAAAGCCAACACTCTGTGACCACCACACTCCAGGAGGCAGCCCCATCCCCTTCCAGCCCC
TAAGTAGGCCCTCCCCTCCCTAAATCTGCTTCCGCACCACCTGGTCTTAGCCCCAAAGATGGGCCTTCTCTCTCC
CAGATAAGTTGGTCTCTCCCTCTGCCTTTCTCTCAAGCCCCAAAGAGCAAAGGCAACAGCAAGACCAGCGGGTT
CTTGCAACACTGTGAGGGGCGAGCCAGGGCGGGCCCCAATAAAGCCCTTGAATACTT

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FIGURE 4853

MESTLGAGIVIAEALQNQLAWLENVWLWITFLGDPKILFLFYFPAAYYASRRVGI AVLWISLITEWLNLI FKWFL
FGDRPFWWVHESGYYSQAPAVHQFPSSCETGPGSPSGHCMITGAALWPIMTALSSQVATRARSRWVRVMP SLAY
CTFLLAVGLSRIFILAHFPHQVLAGLITGAVLGWLMTPRVPMERELSFYGLTALALMLGTSLIYWTLFTLGLDLS
WSISLAFKWCERPEWIVHDSRPFASLSRDSGAALGLGIALHSPCYAQVRRALGNGQKIACLVLAMGLLGPLDWL
GHPPQISLFYIFNFLKYTLWPCLVLALVPWAVHMFSAQEAPP IHSS

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FIGURE 4854

GGCACGAGGCCGACGCGGACTGCCCTTTCCCAAGATGCGTCGAAGATAGGTTTCGAGACGGTGGATGTTGCAGCT
GATCATGCAGTTGGGTTTCGGTGCTGCTCACACGCTGCCCCCTTTTGGGGCTGCTTCAGCCAGCTCATGCTGTACGC
TGAGAGGGCTGAGGCACGCCGGAAGCCCGACATCCCAAGTGCCTTACCTGTATTTTCGACATGGGGGCGAGCCGTGCT
GTGCGCTAGTTTCATGTCCCTTTGGCGTGAAGCGGCGCTGGTTTCGCGCTGGGGGCGGCACTCCAATTGGCCATTAG
CACCTACGCCCGCTACATCGGGGGCTACGTCCACTACGGGGGACTGGCTGAAGGTCCGTATGTACTCGCGCACAGT
TGCCATCATCGGCGGCTTTCTTGTGTTGGCCAGCGGTGCTGGGGAGCTGTACCGCCGGAACCTCGCAGCCGCTC
CCTGCAGTCCACCGGCCAGGTGTTTCTGGGTATCTACCTCATCTGTGTGGCCTACTCACTGCAGCACAGCAAGGA
GGACCGGCTGGCGTATCTGAACCATCTCCAGGAGGGGAGCTGATGATCCAGCTGTTCTTCGTGCTGTATGGCAT
CCTGGCCCTGGCCTTTCTGTACAGGCTACTACGTGACCCCTCGCTGCCCAGATCCTGGCTGTACTGCTGCCCCCTGT
CATGCTGCTCATTGATGGCAATGTTGCTTACTGGCACAACACGCGGCGTGTTGAGTTCTGGAACAGATGAAGCT
CCTTGGAGAGAGTGTGGGCATCTTCGGAAGTGTGTATCTTGGCCACTGATGGCTGAGTTTTATGGCAAGAGGC
TGAGATGGGCACAGGGAGCCACTGAGGGTACCCCTGCCTTCCTCCTTGCTGGCCCAGCTGCTGTTTATTTATGCT
TTTTGGTCTGTTTGTGTTGATCTTTTGCCTTTTAAATTTGTTTTTGCAGTTAAGAGGCAGCTCATTTGTCCAAA
TTTCTGGGCTCAGCGCTTGGGAGGGCAGGAGCCCTGGCACTAATGCTGTACAGGTTTTTTTCTGTAGGAGAGC
TGAGGCCAGCTGCCCCTGAGTCTCCTGTCCCTGAGAAGGGAGTATGGCAGGGCTGGGATGCGGCTACTGAGAGT
GGGAGAGTGGGAGACAGAGGAAGGAAGATGGAGATTGGAAGTGAGCAAAATGTGAAAAATTCCTCTTTGAACCTGG
CAGATGCAGCTAGGCTCTGCAGTGTGTTTGGAGACTGTGAGAGGGAGTGTGTGTGTTGACACATGTGGATCAGG
CCCAGGAAGGGCACAGGGGCTGAGCACTACAGAAATCACATGGGTTCCTCAGGGTATGCCAGGGGCAGAAACAGTA
CCGGCTCTCTGTCACCTTGAGAGTAGAGCAGACCCTGTTCTGCTCTGGGCTGTGAAGGGGTGGAGCAGGCA
GTGGCCAGCTTTGCCCTTCCTGCTGTCTCTGTTTCTAGCTCCATGGTTGGCCTGGTGGGGGTGGAGTTCCCTCCC
AAACACCAGACCACACAGTCTCCAAAAATAAACATTTTATATAGACAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4855

MASKIGSRRWMLQLIMQLGSVLLTRCPFWGCFSQLMLYAERAEARRKPDIPVPYLYFDMGAAVLCASFMSFGVKR
RWFALGAALQLAISTYAAYIGGYVHYGDWLKVRMYSRTVAIIGGFLVLASGAGELYRRKPRSRSLQSTGQVFLGI
YLICVAYSLQHSKEDRLAYLNHLPGGELMIQLFFVLYGILALAFLSGYYVTLAAQILAVLLFPVMLLIDGNVAYW
HNTRRVEFWNQMKLLGESVGIFGTAVILATDG

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FIGURE 4856

AAAGGACCGAGGCGTGCAGCGGACAGCAGATGGATCCCGCGGCCAGCAGCTGCATGAGGAGCCTCCAGCCCCCAG
CCCCTGTCTGGGGCTGCCTTCGAAACCCCCACTCGGAAGGCAATGGGGCCTCAGGGCTACCCCACTACCCGCCCA
CCCCGTTCTCCTTCCACCAGAAACCAGACTTCCTGGCGACAGCGACGGCAGCGTACCCTGACTTCTCAGCCTCCT
GCCTGGCAGCCACCCACACAGCCTGCCCCAGGAGGAGCACATCTTCACTGAGCAGCACCCCGCTTTCCACAGT
CCCCAACTGGCACTTCCCTGTCTCAGACGCCCGCGCAGGCCCACTCAGGCCCGCAGGGGGTTCCAAGGAAA
TGGGGACCAGCAGCCTGGGCTGGTGGACACCACAGGAGGCCAGGCGATGACTACGGGGTGCTTGGGAGCACTG
CCAATGAGACAGAGAAGAAATCATCCAGGCGGAGAAAGGAGAGTTTCAACAACCAGGAGAACAGAGGGAAGCCGG
AGGGCAGCAGCAAAGCCCGCAAGGAGAGGACGGCCTTACCAAGGAGCAGCTGCCAGAGCTGGAGGCAGAGTTTG
CCCATCATAACTACCTGACTCGGCTCCGCAGATATGAGATTGCGGTAAACCTGGACCTCTCTGAGCGCCAGGTCA
AAGTGTGGTTCCAGAACCAGGATGAAGTGAAGCGTGTGAAGGGAGGTCAGCCCATCTCCCCCAATGGGCAGG
ACCTGAGGATGGGGACTCCACAGCCTCTCCAAGTTCAGAGTGAGATTCTGCATGGAGGAAAAATGACTAAGGAC
TGAGCCCCCTACCCAACTACCCCCACCCCAATCCACCTTACCCCTCTTCCCTTCCCCAGCCAGGGCAGCCTCTCC
ACATCTTTCCCTGACTCTTGGATATGAAACTGCCCAGCATTCTTGGGAGTCTTAGGATTTTCTAGGAAGTTCTGT
CCAGCCTCTTAGCAGCCTCTTCCCTAGGGCCTTTGCTCCCACTCTCATGGAATCAGACAGAGATCCTACCGGG
CCGGATGAATCTGGAAACAGCTTCAGAGATACTGCTTCTCAGCGTCTCTTGGCTGCCACCCATGCCTCCTCCTAC
CGCTGTTCTCCTAGGTGAGCCAGGCCCTCCTCTGGTCTGGACACCACCTGGCCTGGTGGGAGAGGAGCTTTGGAA
CCAGCTGGCGACTCGGAAAGTAAATGCTTCAAAGGAAGGAAATGACAGAGACACACGCCCTTGCCACCTTCTCT
CTGTAGGCTGCACATCTGAGGCTTTGGGGCCCCCTTAGTTGTCCCGAAACCCCAAGAAAAATCAGAATGAGGAGAG
TCAAGGACAGCAACTCAGCTGCTGCAAGCCAGAAACACATCCCTGTCTCCAAATTTGTTGGCTAAGTGGAGACAC
TTCTGAGAAGTACTAGAGAAGACAGAAAAATAGCCCGATGTAGGTTTCGGTGTCCCCATATAGGCCCGTCCACA
CAGGCTTGACTGGGTGGACAAGAATGAACCCATGACAGCACCTGCTGCTTCAAAATCAAAATCAATTTAGGGATA
CAGCAGGGGCTGTGGGCTGTGCTCCAGAGAAAAGGAGCAGCTACTCCTTTTAAATCCACGATTTCTGGATTGAA
AACCTGTCCAGATGCTGAGTTGTTGGGCTGAACAAGTGGAGCTGAAAACAACGTAGAGGCTGGAAAGTGTCCCC
TGCAATCTGGAGGGGAGGGGAGATAATAAGGAGGGCTGCTGGGTGAGGGCCTGGAGATGTGGAACCTGGAGTGG
AAGGTTCTCCAGTGACAGTGTCTGTGACTGCAAAAGGGGACAAGAAAAATCCCTCTTCCCTCCATGGGATGGATTT
AAGCTCTGTGTGTGTTCTACAAATGCTGTTATTGTGGGAGGAAATGCTAGGTTTTTGTGTGTGGACTGCCCAG
ACCTCAGCCAGGTCTTCTGGAGATGACATTTGAGGACTGATGGCCAAAGAGCATGGGGGACTGAAGCCCTGGCTG
CCTCAGCGCTCTGTCTCCCAACACCAGCTGGTGTGACAGGGGAGGTCAACGTGAGTTTGGATCTCTTGTACGCA
GATGTAATCATTACATGTAAAAATAACCCACCTCCCCACCCCAAAAAGGGCAAGAGCTGTGGAATGATTGC
CAAATGAGATGGCTGGTTAGAGCATGATTTTTTCTAAAGCATACTTCATATATTTTCTTAAGATTACATCAAGCT
AATTGTGCGAGCTCAATTCACCTTTGTAAGAAAACCTCTCGGAGAAATAAAATCAATAAAAAGC

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FIGURE 4857

GAGCGGCCCGAGGAGGACGCAGCGGCGCTGGAGCTTTCGTCGGACGAGGCGGTGGAGGTTGAGGAGGTTATTGAG
GAGTCCCGCGCAGAGCGTATCAAGCGCAGACACTGCGGCGCGTGGACGACTTCAAGAAGGCCTTCTCCAAGGAGA
AGATGGAGAAGACCAAGGTGCGTACCCGCGAGAACCCTGGAGAAGACGCGCCTCAAGACCAAGGAAAACCTGGAGA
AGACGCGGCACACCCTGGAGAAGCGCATGAACAAGCTGGGCACGCGCCTGGTGCCCGCCGAGCGGCGCGAGAAAC
TGAAGACGTCGCGGGACAAGTTGCGCAAATCCTTCACGCCCGACCACGTGGTGACGCGCGCTCCAAGACCGCGG
TCTACAAGGTGCCACCCTTCACCTTCCACGTCAAGAAGATCCGCGAGGGGCCAGGTGGAAGTGCTCAAGGCCACCG
AGATGGTGGAGGTGGGCGCCGACGACGACGAGGGCGGCGGAGCGCGGGGAGGCCGCGACCTGCGGCGCGGGAGC
AGCCCCGACGTGCACGCGCTGCTGGAGATCACCGAGGAGTCGGACGCCGTGCTGGTGGACAAGAGCGACAGCGAC
TGAGCCGCCCCGCTGCCACCCACCCATTCTCGCTCCTTCCGAACCTTCTCTTCGCATTCTCTCTCGGCTCG
AGCTGGCTGAGATTTTCTAAATTGAAAACACGCCCCCTCCCCACACCTCCAGGAACCTCCACTCCAGTCTTAG
AGCTGTTAGGACCCGATGGGGAGGCAGCCCCGCGAGTGGACAGCCCCGCTTGGACACAGTCCGAGTGGAATGGG
AAGGGAATGGTCAATCCCTGTCTGGTTGTCCAAGTCGGGATCTCAGAGGAAATTGCAGTGATTCCACGGTTAGG
CCCCCTGGGGGGGCTGCCTTCCCTCAGCCTCTCCCCACACCACCCACCCAGCTGCTGTCTATTCCGCTCACTGA
GCTCTTCTTCTATTCTACCCCTGATCCCTGGGGGACTCAAAGCCAAAACCTGCCCAAAGAGGAAAGATTGAATCCTA
AAGGGGATCCTTGCCCCATGGGAGGCCCTTACTAGAAGGACGTGAAAGCAGCTTTTGGGGGAAACTGAGGCAG
TGGGGAAGACAGAGCAGAAATGAGCCCTCACCTGGCTGGGGGTCCAGCACAGGCTGTATCTGCAGAGGGTCCAG
AGGAACGCTGGAGCCAAGAGAAGCCCTGGGAAGGAGGGGTGGGGAACGACATGCATGTGAGGGATGGCACACTGA
TGTGTTTATGCACCTGTACACAGGAGCGCATGGCCATGGCTTTGGAAAGGAGAATGGAAAAATAGAAGAAGGTGCG
GCCGGGCTTGGTGGCTTATGCCGTGAACCCAGCACTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGGTCAGGA
GTTGCGGACCAGCTGGCAAACACCCATCTCTACTAAGCGAAAAACCATCTCTACTAAAATTACAAAAATTAGC
TGGGCATGATTGCGCATGCCGTGAATCCAGCTACTTTGGAGGCTGAGGTGGGGAGAATTGCTTGAACCTGGGAG
GTGGAGGTTGCAGTGAGCCAAGGTGCGACACTGCACTCCAGCCTGGGTGACAGAGTGAGACTCCATCTCAACAG
AAGGAAAAAAGGAAAAATAGGAGAAGGTGGAATGGGTGAAGAGAGAAGTCCCCTCACTAGCTGCATGAGAAAT
CTATCTTACTGTGTTCTCCATGGGCAGCAGGACCATTTTTCAGAATCAAGAGGGAGGACAGTGTGAGAAGGCGA
TGATCCAAAGAAGACAGAGAGGTCAGCCCCACCCGATCCCTCAAATGGGCTCTTGGAGGCACCCCAAGGGGAGC
CCATTTCTCAAAGTCCAGAAAATTAGGGTCCCAGAAGGGGGCAGCAGCAGGCTGGGAGTTAGGAGGGAGAGCAGG
GTGCCGGCCCTGCCACCAAGTTGAGAGCTGGAGGGGAGGTGGGGAGAGAACATCACAGAGCAGCCAGCCCTGGTT
CACTCCTGGCAGTTTCTTCTCAAGCTCCTTCCCTAGGAGCATGGTGGCACGTGCCTGTGGTCTCAGCTACTTGGG
AGGCTGAGGCGGGGAGGATCGCCAGAGCCAGGAGTTTGGGCTGCAGTGAGCTATGAGGGTGCCTCTGTGCTCCA
TCCTAGGCAACAGAGTGAGACGCTGTTTAAAAAGGAAAAAATCCTTCCCTAGAGCTAGTATCCTAAAGCTGCAGA
GCTAGCCCAGACCTCATTGGTTTCTTGTCTTGGGGTGCTTTTCTGAATCTTTGGGGGTGAAGGGAGTGTGCT
TCCCAGTCCAGAGGCTGATTCTGTTGCGACTGGGTTCTCAAGACACGACCAGGTTCTCAAGACACGAGTCCCCT
TGTTCTTCCCATTAAGGGGGTTTGTGAGAAGCAAGAACAGCCCTCTCCCAAGTACAGCCTGAAGGGAGGCC
CCGAGAGCTTCTCCTTCCCCCACCTGCTCCTTACCTTCTCTGCCCTGCTTTTTAGAACTGCAGTTCATTGTTT
TAAGGGATTGGGGGAGGGAGCCTGGGGACACAAACCTTTTATACAATACAAAGCTTTGCTTTTTTTTTTTTTTTC
TTCCTTTTCCCTTTCTCGGTTCTTCTCTCTCTGAAATGGCTGAAGACCCCTCTGCCGAGGGAGGTTGGGGATT
GTGGGACAAGGTCCCTTGGTGCTGATGGCCTGAAGGGGCTGAGCTGTGGGCAGATGCAGTTTTCTGTGGGCTTG
GGGAACCTCTCACGTTGCTGTGCTGCTGGTGAGCAGCCCGACCAATAAACCTGCTTTTCT

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FIGURE 4858

MEKTKVRTRENLEKTRLKTKENLEKTRHTLEKRMNKLGTRLVPAERREKLKTSRDKLRKSFTPDHVYARSKTAV
YKVPFFTFHVKKIREGQVEVLKATEMVEVGADDDEGGGARGGRRPAAREQPRRARAAGDHRGVGRRAGGQERQRL
SRPRCHPPHSSLLPNFLFRILSRLELAEIFLN

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FIGURE 4859

ATGGCCGTATTCCGGTCGGGTCTCCTGGTGCTGACGACGCCGCTGGCCTCCCTAGCCCCCTCGCCTGGCCTCCATC
CTGACCTCGGCGGGCCCCGGCTGGTGAATCACACACTCTATGTTACCTGCAGCCGGGCATGAGCCTGGAGGGCCCCG
GCTCAGCCCCAGTACAGCCCCGTGCAGGCCACGTTTGAGGTTCTTGATTTTCATCACGCACCTCTATGCTGGCGCC
GACGTCCACAGGCACTTGGACGTGAGAATCCTACTGACCAATATCCGAACCAAGAGCACCTTTCTCCCTCCCTG
CCCACCTCAGTCCAGAATCTCGCCACCCGCCAGAAGTCGTGTTGACAGATTTCCAGACCCTGGATGGAAGCCAG
TACAACCCGGTCAAACAGCAGCTAGTGC GTTACGCCACCAGCTGTTACAGCTGTTGTCCGCGACTGGCCTCGGTG
CTGCTATACTCCGATTATGGGATAGGAGAAGTGCCCGTGGAGCCCCCTGGATGTCCCTTACCCTCCACGATCAGG
CCAGCTTCCCCCGTGGCCGGGTCTCCAAAGCAGCCGGTGC GTGGCTACTACCGTGGCGCTGTGCGTGGCACGTTT
GACCGCCTGCACAACGCCCCACAAGGTGTTGCTCAGTGTGCGGTGCATCCTGGCCCAGGAGCAGCTTGTGGTGGGA
GTAGCAGACAAAGATCTGTTGAAGAGCAAGTTGCTCCCTGAGCTGCTCCAACCTTATACAGAACGTGTGGAACAT
CTGAGTGAATTCCTGGTGGACATCAAGCCCTCCTTGACTTTTGATGTCATCCCCCTGCTGGACCCCTATGGGCCC
GCTGGCTCTGACCCCTCCCTGGAGTTCTGCTGGTGGTCAGCGAGGAGACCTATCGTGGGGGGATGGCCATCAACCGC
TTCCGCCCTTGAGAATGACCTGGAGGAACCTTGCTTTGTACAGATCCAGCTGCTGAAGGACCTCAGACATACGGAG
AATGAAGAGGACAAAGTCAGCTCCTCCAGCTTCCGCCAGCGAATGTTGGGGAACCTGCTTCGGCCTCCATATGAA
AGGCCAGAGCTCCCCACATGTCTCTATGTAATTGGGCTGACTGGCATCAGTGGCTCTGGGAAGAGCTCAATAGCT
CAGCGACTGAAGGGCCTGGGGCGTTTGTCAATTGACAGTGACCACCTGGGTGATCGGGCCTATGCCCCAGGTGGC
CCTGCCTACCAGCCTGTGGTGGAGGCCCTTGGGAACAGATATTCTCCATAAAGATGGCATCATCAACAGGAAGGTC
CTAGGCAGCCGGGTGTTTGGGAATAAGAAGCAGCTGAAGATACTCACGGACATTATGTGGCCAATTATCGCAAAG
CTGGCCCCGAGAGGAGATGGATCGGGCTGTGGCTGAGGGAAAGCGTGTGTGTGTGATTGATGCCGCTGTGTTGCTT
GAAGCCGGCTGGCAGAACCTGGTCCATGAGGTGTGGACTGCTGTGATCCAGAGACTGAGGCTGTAAGACGCATT
GTGGAGAGGGATGGCCTCAGTGAAGCCGCGGCTCAAAGCCGGCTGCAGAGCCAGATGAGCGGGCAGCAGCTTGTG
GAACAGAGCCACGTGGTGTCTAGCACCTTGTGGGAGCCGCATATCACCCAACGCCAGGTGGAGAAAGCCTGGGCC
CTCTTGCAAGCGCATTCCCAAGACTCATCAGGCCCTCGACTGA

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FIGURE 4860

MAVFRSGLLVLTTPLASLAPRLASILTSAARLVNHTLYVHLQPGMSLEGPAQPQSSPVQATFEVLDFITHLYAGA
DVHRHLDVRILLTNIRTKSTFLPPLPTSVQNLAPPEVVLTDFTLDGSQYNPVKQQLVRYATSCYSCCPRLASV
LLYSDYGIGEVPEPLDVPLPSTIRPASPVAGSPKQPVRGYYRGAVGGTFDRLHNAHKVLLSVACILAEQLVVG
VADKDLLKSKLLPELLQPYTERVEHLSEFLVDIKPSLTFDVIPLLDPYGPGAGSDPSLEFLVVSEETYRGGMAINR
FRIENDLEELALYQIQLLKDLRHTENEEEDKVSSSSFRQRM LGNLLRPPYERPELPTCLYVIGLTGISGSGKSSIA
QRLKGLGAFVIDSDHLGHRAYAPGGPAYQPVVEAFGTDILHKDGIINRKVLGSRVFGNKKQLKILTDIMWPIIAK
LAREEMDRAVAEGKRVVIDAAVLEAGWQNLVHEVWTAVIPETEA VRRIVERDGLSEAAAQSRLQSOMSGQQLV
EQSHVVLSTLWEPHITQRQVEKAWALLQKRIPKTHQALD

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FIGURE 4861

CCTCGCCGCAGGGGGCCCGCCCGCTGGCCCGTTTCCGGTCCGGTGGGTACAAGATGACGGAGCCGGGCGCCTCTC
CCGAGGACCCCTTGGGTCAAGGCAAGCCCCGTGGGCGCGCACGCCGGCGAGGGGAGGGCGGGTCGGGCTCGTGAC
GTAGGGGGGCGCGGAAGACGAGGGGCTTCCCTCCTGTCCCCAAAGTCCCCACGCTCTCCGTGCCCCGGGGCTGCA
GAGAAGACAGCTCTCACCCCGCGTGTGCCAAGGTGGAGTATGCCTACAGCGACAACAGCCTGGACCCCGGGCTTT
TTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATCGGTTCCACCAGTGCTCTTCTGTCC
CCAACACAGATGATGAGGACAGTGATTACCACCAGGAGGCCTACAAGGAGTCTTACAAAGACCGGCGGGCGCG
CACACACTCAGGCTGAGCAGAAGAGGAGGACGCCATCAAGAGAGGCTATGATGACCTTCAGACCATCGTCCCCA
CTTGCCAGCAGCAGGACTTCTCCATTGGCTCCCAAAGCTCAGCAAAGCCATCGTTCTACAAAAGACCATTGACT
ACATTCAGTTTTTTGCACAAGGAGAAGAAAAGCAGGAGGAGGAGGTGTCCACGTTACGCAAGGATGTACCCGCC
TAAAGATCATGAAAGTGAACCTATGAGCAGATTGTGAAGGCACACCAGGACAACCCCCATGAAGGGGAGGACCAGG
TCTCTGACCAGGTCAAGTTCAACGTGTTTCAAGGCATCATGGATTCCCTGTTCCAGTCCCTCAATGCCTCCATCT
CAGTGGCCAGCTTCCAGGAGCTGTGAGCGTGTGTCTCAGCTGGATCGAGGAGCACTGTAAGCCTCAGACCCTGC
GGGAGATTGTGATTGGCGTCCCTGCACCAATTGAAAAACCAGCTTTACTGACCGGTTCTTGGAACCTGGAGAACA
GCCAACAAGAGGCCCTTGAATCTCTACGTGGCCACTGAACTGCTGGGCCCCGGGAGACTGGACTACAACACCTCAC
ACTGGTCAGCTGGTTTTCTACTTGGTGTGTTGGTTTTTCCCAGCCCCATTTTATCTTCAGCGGAGCCGCGGTGTTG
TTTTGTGAAAGCTTCTGATTAAATTTATTATATTGACGATAAACTCAAACCTACCCAGCCTTCCCCCACTCCAT
GGAAGTCTTGGGATGGGCGTCTGCTCTGGACACCCCAAAGAGCTCCTGCCCTCTCAGCCCTTTATTCAAGCCTC
AGATTTCTGCTCATGATCTACATAGATTTGGAAACTGTTTTCTCTGTTTTGGTCTCTTGGGCAACATTTTTGGC
CCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATTTTGGCAGTAGCTGTATGGGAGAAAAAGAGTAAGAGGAA
ATATTCCCACAGCCATGAAGGGTGAAAGGGCACCTTGTGCTAGACTAGGGCTGCCTGGTCAGTCCCAGGTGAGG
CCAAGGGCTTTCTGGCCATCTCAGGGAGGGGGCCACCAGGTTCCCTCCCCCTACCCCCATATTCCATCACCTTCCTCC
TCTGCTCTGGGTGGTAAGGGAAGCCCTCCCGGTTCCCACAGGCTATGATGCTGCATGGCAGAGGCAGGTATAACA
CAGCACTACATATTGGAATTTTTTATTTTTCTAAATACCAATGCAGTTTTGCTACGGTTACAATTTTGAAATAT
TAACTGAGCCTCAAAATCACCCCTTCTGTCAAGCATATCTTGGCCTCTCCCATGTCTCAGTGTGCTGCAATTC
TCCCAGGACTTGGGGGTGGGGTGAAAAGCGTACAAAAGATACTTAAAAGGGCTCCTGGGGTACACAAGCCCAGCA
GGTCCTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTTATAGCAACCTCTCTCTACCCTAGTTCTCCAAATTC
ACTTCTGCCTTCCCTCAGGTTTGATATCTGGCAGGTTTGACTATCCAGAGGAAATTAAATATTTTTATATAAAATT
AAATTATAATAAATATTGCCAAATGCTTTCCTTTAGCATTTGTTCCAAGTCTAAATGTTAACCTCAAGCTACTGCA
ATTTAGACAATGAAATGGGCTGGGTCTACCCCCAGCCACCAGCCCTCATCTCTCTACCCAGTGCTCTGGTTTTAT
GCTTGTCTCCTGACTGCTCTGCTTAAAGGTGAAAGTAGCAGGAACAACAACAAAAGCCAACCAAAAACAAGGTAG
CCAGTGCAAGACATCTCACTCTTCTGACATCCTGCAGTCCCCACCAGTCCCTGACCGTGGGCCCCCTCAGGGGTCTG
GGAGTGTGACGTTGTAATCTTCATCCGTCTCTATCCCAACTTCCTCCTGTGAGACAGGGAGACAAGTGAATGAGA
TGTCACCAGGATAAGACCACAGGGAAGCAAAGAAGGAAGAGAGCTCCACTTACAAAGAACTGCTTCTTGCTCTTG
GGGTATCCTTCAAGTATTGCATCAGACAGCTCTGTAGCCTGACAAGAAATAAAACCACCCGTTTTTCAGATGGGCA
GCACTGGGCACTGCCTGTCAGTTTATGATATTGTGT

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FIGURE 4862

MTEPGASPEDPWVKASPVGAHAGEGRAGRARARRGAGRRGASLLSPKSPTLSVPRGCREDSHPACAKVEYAYSD
NSLDPGLFVESTRKGSVVSRRANSIGSTSASSVPNTDDESDYHQEAYKESYKDRRRRAHTQAEQKRDAIKRGYD
DLQTIVPTCQQQDFSIGSQKLSKAIVLQKTIDYIQFLHKEKKKQEEEVSTLRKDV TALKIMKVNYEQIVKAHQDN
PHEGEDQVSDQVKFNVFQGIMDSLFQSFNASISVASFQELSACVFSWIEEHCKPQTLREIVIGVLHQLKNQLY

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FIGURE 4863

CAACTACAACGTCCGGCTTTCTGAGTTGGGTGGCGGGAAAGGCGATGAGTAAAGGCCGGGCAGAAGCTGCGGTAG
CCGCCGGGATCCTCCTGAGGTACCTGCAGGAGCAGAACCGGCCCTACAGCTCCCAGGATGTGTTCCGGGAACCTAC
AGCGGGAACACGGACTGGGCAAGGCGGTGGTGGTGAAGACGCTGGAGCAGCTGGCGCAACAAGGCAAGATCAAAG
AGAAGATGTACGGCAAGCAGAAGATCTATTTTGGCGATCAGGACCAGTTTGACATGGTGAGTGATGCTGACCTTC
AAGTCTTAGATGGCAAAATCGTGGCCCTCACTGCTAAGGTGCAGAGCTTGACAGCAGAGCTGCCGCTACATGGAGG
CTGAGCTCAAGGAATTATCTAGTGGCCCTGACCACACCAGAGATGCAGAAAGAAATCCAGGAGTTAAAGAAGGAAT
GCGCTGGCTACAGAGAGAGATTGAAGAACATTAAAGCAGCTACCAATCATGTGACTCCAGAAGAGAAAGAGCAGG
TGTACAGAGAGAGGCAGAAGTACTGTAAGGAGTGGAGGAAGAGGAAGAGGATGGCTACAGAGCTGTCTGATGCAA
TACTTGAAGGATACCCCAAGAGCAAGAAGCAGTTCTTTGAGGAAGTTGGGATAGAGACGGATGAAGATTACAACG
TCACACTCCCAGACCCCTGAGGGGGCCACGGTCAGGACTGGTGGGGACTGCAGGATGTCAGAAGAGTGAGATGTC
TTGCACITGGCTACCTTGTTTTTGGTTGGCTTTTGTGTTGTTCTGCTACTTTCACCTTTAAGCAGAGCAGTCAG
GAGACAAGCATAAACCAGAGCAGTGGGTAGAGAGGATGAGGGCTGGTGGCTGGGGGTAGACCCAGCCCATTTTCAT
TGTCTAAATTGCAGTAGCTTGAGGTAAACATTTAGACTTGAACAATGCTAAAGGAAAGCATTGGCAATATTTA
TTATAATTTAATTTTATATAAAAAATATTTAATTTCTCTGGATAGTCAAACCTGCCAGATATCAAACCTGAGGAA
GGCAGAAGTGAATTTGGAGAAGTAGGGTAGAGAGAGGTTGCTATAAAACGAGCATTGGAGGGCCACGGCTTCA
CTCAGGACCTGCTGGGCTTGTGTACCCAGGAGCCCTTTTAAGTATCTTTGTACGCTTTTACCCCCACCCCAA
GTCCTGGGAGAAATGCAGGCAACACTGAGACATGGGAGAGGCCAAGATATGCTTGACAGAAAGGGTGATTTTGAG
GCTCAGTTAATATTTCAAATTTGTAACCGTAGCAAACTGCATTGGTATTTAGAAAAATAAAAAATTTCCA

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FIGURE 4864

GGGCGGACGGCACAGAGGGAGGGAGCGAGCGAGCAGTGAGTAAGCCAGCAAGGGCGGTCCGGTCCCGAGGTCAGC
CGAGATTTCTCAGGTCCCTCCGGCCCCCTCCCTGGAGTCCACAGCGCCTCCGGTGTCAGAGGATCGGACACGGC
CCGGCCCGGCCATGGCCTCGTTGCTGAAGGTGGATCAGGAAGTGAAGCTCAAGGTTGATTCTTTTCAGGGAGCGGA
TCACAAGTGAGGCAGAAGACTTGGTGGCAAATTTTTTCCCAAAGAAGTTATTAGAACTTGATAGTTTTCTGAAGG
AACCAATCTTAAACATCCATGACCTAACTCAGATCCACTCTGACATGAATCTCCAGTCCCTGACCCATTCTTC
TCACCAATAGCCATGATGGACTGGATGGTCCCCTTATAAGAAGCGAAGGTTGGATGAGTGTGAAGAAGCCTTCC
AAGGAACCAAGGTGTTTGTGATGCCCAATGGGATGCTGAAAAGCAACCAGCAGCTGGTGGACATTATTGAGAAAG
TGAAACCTGAGATCCGGCTGTTGATTGAGAAATGTAACACGCCCTCAGGCAAAGGTCCTCATATATGTTTTGACC
TCCAGGTCAAAATGTGGGTACAGCTCCTGATTCCCAGGATAGAAGATGGAAACAACCTTTGGGGTGTCCATTTCAGG
AGGAAACAGTTGCAGAGCTAAGAACTGTTGAGAGTGAAGCTGCATCTTATCTGGACCAGATTTCTAGATATTATA
TTACAAGAGCCAAATTTGGTTTCTAAAATAGCTAAATATCCCCATGTGGAGGACTATCGCCGCACCGTGACAGAGA
TTGATGAGAAAGAATATATCAGCCTTCGGCTCATCATATCAGAGCTGAGGAATCAATATGTCACTCTACATGACA
TGATCCTGAAAAATATCGAGAAGATCAAACGGCCCCGGAGCAGCAATGCAGAGACTCTGTAAGAGGCCAGGGCC
AGGGCCAGGGGACTCTGTGAGTCTGGCTCAAGACCGACATTGCCTTGGTTTGTACATGACTATCGTGATGGGGA
AACTGGCTGGAATAGTAATCACACCTCTCTGTTTTTAGTTAGAGTCTAATGAACTCTCATCTAGTTCTGTGAT
GTGTTTACCTCTTTTTTTCAGGCCTCAGGAACCTCTCTATTTCCCTTCCCTAATACCCACACCCAACCTGTGCTAA
TTTCTGGAGAACTCCAGGTTTGTGTGTGCAGGATGTTGGCACAAAAATACCTGTGTTTTTCACTCTCCCCCTCTCT
CCCTCCTGTGTCTTGCGCTTTATGTTTTCTCCGTTTGATAATTAGTTGGTTAAAAGCTGAGGGAACCGGAAGGA
AAGTGCTAGGTGTTTTTTCAGGAACCTAGGGTGGCGGGGGGACGAACCTCTCTTCCCTCACATGAGGTTACTGTTTCT
TTCTCTGTGGGGCATTGGATCCTCCACAGTTGCCCTGGTGATGACTTAGGGCTTCCCATCTGTGTACATCCCA
CTTTGAATCTTGATCGTGACAAGAAATACCTTAGGCCTTCAGTCAATTCCGAAGCTCCTTCAGTTGTTTTTATAA
TGGGCGTTTTTCACATGCACATATGTGTATGCATGTATACGCCCATACAGACATGCACACACAGACTCCTACTCCA
TTAGCTAACATACCCTCCCTCTCCACAACCCCTGTACATACCTTTTCAGGAGGTGACAGTTGTCTTAGTTGTGAT
CTACCCAGACAAACGTCTGGGCCCCGTCTCCCTCCTGTACTGTAGCCTCTTGGTACCCAGGGTGAGTTGGTGG
AGAACAGAGAGATGAGAAGCAGAGGGCTTGGGGAAAGCCTGTTCTCTCTGACTCAGCCCTTTTTTGGCATTATTG
CAAGAGCTTGACTCCTGGTTGCCTTTTCCAGCCAGTTTTCAGTTGGGGTGAAGGTTTCTGCAAGTGTGAGGTCC
AGATGCTGCTGCTCATGTTGGGCTTTCTTTTGGGAACTATTTCTCTTTATTTATAGTGTGGGCTTCCGGGGAA
AGCAATCATTTGGTGTGTATGTGTATGTGCATGCACACACGTGCATATACACATTTGTGTATGTGGAAATGTGCTG
GGCAAGTCAAACTATAGAAGAGTTGCCCTCCTGTCTCTCGAATCTTCCAGAGATATCACTTAATTGTTAACAGCT
TTTGTGTTAATCCCTTCAGCCCTTAGCTCTTTTATTCTACACGGCTGGAGAGTTGATACCTGCAGTCAGCCTG
CCAGTGACTCTTAGTGCTGTTTCTGACTTATTTTTCTGTCTCTGTCTTCCAACCCCCAATAATTTTCCACCG
GGGATGCATCATTTTTACTCCCAATATTCTGTAGAGAGGGAGTCAGGATGCTGTCTTCCACGAATAGTACTCAG
TAACAAACCAATTGCATTTTAGTTGGGCAGTGCTCCACCCACCCCTCCAGATCCCTTCCAGCTAAAACCCCTCCC
CCTTCCCTCCATGTGTTTCTCAGTTTCCCGTTTCGTTTGTGGACTGTTCCACTGCCCCCTCCTCCTCACCCCTATC
ACCCATGGATCGTAATGTAAAATCTTTTACCATGTCAAGAAATTATTAATAACAGGTACTTTGACCTCTTTC
TAAAGCCGAGACCCTGGTGCAATGCTCTGGTGGCTAGGGATGTACTCATGTGTGTGCACGCTTGGACA
CCCACCTCCATGGACACCTAGCCACCCTGTTGTGTGCTTATGCCAGTTGAGCTGAATCTTTTCCCAGTATAG
TGGAAGACTGAGGCTTCTGCCCTACTGAGCAAGGTTGGGTGCTTTCATTGTGTTTCACTCTGAATTATGGGAAAGT
TAGCTCTTCCAGACCTAAGCTGCCTTCTCTCCCTACTTTTCAG

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FIGURE 4865

GCTGAAGACAGAGCGATGGTAGTTCTGGAGGCCCTCGCTCCGGGGCCGACCCGAGGCCACAGTGCCTCCGCGGTAG
ACCGGACTTGGGTGACGGGCTCCGGGCTCCCGAGGTGAAGAGCATCGGGGGCTGAGGGATGGAAGGGTCTAAGAC
GTCCAACAACAGCACCATGCAGGTGAGCTTCGTGTGCCAGCGCTGCAGCCAGCCCCCTGAAACTGGACACGAGTTT
CAAGATCCTGGACCGTGTCAACATCCAGGAACTCACAGCTCCATTACTTACACAGCCCAGGCGAAACCAGGAGA
GACCCAGGAGGAAGAGACTAACTCAGGAGAGGAGCCATTTATTGAAACTCCTCGCCAGGATGGTGTCTCTCGCAG
ATTTCATCCCCCAGCCAGGATGATGTCCACAGAAAGTGCCAACAGCTTCACTCTGATTGGGGAGGCATCTGATGG
CGGCACCATGGAGAACCTCAGCCGAAGACTGAAGGTCACTGGGGACCTTTTTGACATCATGTGGGGCCAGACAGA
TGTGGATCACCCACTCTGTGAGGAATGCACAGATACTCTTTTAGACCAGCTGGACACTCAGCTCAACGTCACTGA
AAATGAGTGTGAGAATAACAAACGCTGTTTGAGATCTTAGAGCAAATGAATGAGGATGACAGTGAACAGTTACA
GATGGAGCTAAAGGAGCTGGCACTAGAGGAGGAGAGGCTGATCCAGGAGCTGGAAGACGTGGAAAAGAACCACAA
GATAGTGGCAGAAAATCTCGAGAAGGTCCAGGCTGAGGCTGAGAGACTGGATCAGGAGGAAGCTCAGTATCAGAG
AGAATACAGTGAATTTAAACGACAGCAGCTGGAGCTGGATGATGAGCTGAAGAGTGTGAAAACCAGATGCGTTA
TGCCACAGACGCAGCTGGATAAGCTGAAGAAAACCAACGTCTTTAATGCAACCTTCCACATCTGGCACAGTGGACA
GTTTGGCACAATCAATAACTTCAGGCTGGGTGCGCTGCCAGTGTTCCTGGAATGGAATGAGATTAATGCTGC
TTGGGGCCAGACTGTGTGTGCTGCTCCATGCTCTGGCCAATAAGATGGGTCTGAAATTTTCAAGATACCGACTTGT
TCCTTACGGAACCATTCATATCTGGAGTCTCTGACAGACAAATCTAAGGAGCTGCCGTTATACTGTTCTGGGGG
GTTGCGGTTTTTCTGGGACAACAAGTTTGACCATGCAATGGTGGCTTTTCTGGACTGTGTGCAGCAGTTCAAAGA
AGAGGTTGAGAAAGGCGAGACACGTTTTTGTCTTCCCTACAGGATGGATGTGGAGAAAGGCAAGATTGAAGACAC
AGGAGGCAGTGGCGGCTCCTATTCCATCAAAACCCAGTTTAACTCTGAGGAGCAGTGGACAAAAGCTCTCAAGTT
CATGCTGACGAATCTTAAGTGGGGTCTTGCTTGGGTGTCCTCACAATTTTATAACAAATGACTTTTTTCTTAGG
GGGAGGTTTGCCTTAAAGGCTTTTAAATTTGTTTTGTTTTGCAAACATGTTTTAAATTAAATTCGGGTAATATTAA
ACAGTACATGTTTACAATACCAAAAAAGAAAAATCCACAAAAGCCACTTTATTTTAAATATCATGTGACAGAT
ACTTTCCAGAGCTACAACATGCCATCTATAGTTGCCAGCCCTGGTCAGTTTTGATTCTTAACCCCATGGACTCCT
TTCCCTTTCTTCTCTGAAAAAACTAATTTAAATTTGCTTTTCTTTTTTTAACTGAGTTGAATTGAGATTGATG
TGTTTTCACTGGATTTTTATCTCTCTCAACTTCCTGCACTTAACAATATGAAATAGAACTTTTGTCTTTACTGA
GATGAGGATATGTTTGAGATGCACAGTTGGATAATGTGGGAAAATGACATCTAAGCTTTACCTGGTCACCATGTG
ATGTGATCAGATGCTTGAAATTTAACACTTTTCACTTGGTTCTTATACTGAATGCCGACTCTGCTCTGTGTTAGA
GATATGAAATGGTGTGTTGATACTGTTTGAGACATTATGGAGAGATTTAATTATTTGTAATAAAAGATTGTGCA
GTCTGAAAACCTGAAAAA

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FIGURE 4866

MEGSKITSNNSTMQVSFVCQRCSQPLKLDTSFKILDRVTIQELTAPLLTTAQAKPGETQEEETNSGEEPF IETPRO
DGVSRRFIPPARMMSTESANSFTLIGEASDGGTMENLSRRLKVTGDLFDIMSGQTDVDHPLCEECDTLLDQLDT
QLNVTENECQNYKRCLEILEQMNEDDSEQLQMELKELALEEERLIQELEDVEKNRKIVAENLEKVQAEAERLDQE
EAQYQREYSEFKRQQLELDDELKSVENQMRYAQTQLDKLKKTNVFNATFHIWHSQGFGTINNFRGLRPSVPVEW
NEINAAWGQTVLLHALANKMGLKFQRYRLVPYGNHSTYLESLTDKSKELPLYCSGGLRFFWDNKFHAMVAFLDC
VQQFKEEVEKGETRFCLPYRMDVEKGKIEDTGSGSGSYSIKTQFNSEEQWTKALKFMLTNLKWGLAWVSSQFYNK

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FIGURE 4867

TTGGAGGTCCCCCTCCCCACTAAGTGCCTCTTTGCATAGCACCAGTCCCCACCCGCACGCTCTCTGGACCACTAC
AGCTGGACGGGCAATGGCGGGTCGGGGAGGCGCAGCAGACCCCAATGGACCAGCTGCTGGGAACAAGATCTGTCA
ATTTAAGCTGGTTCTGCTGGGGGAGTCTGCGGTAGGCAAATCCAGCCTCGTCCTCCGCTTTGTCAAGGGACAGTT
TCACGAGTACCAGGAGAGCACAATTGGAGCGGCCTTCCTCACACAGACTGTCTGCCTGGATGACACAACAGTCAA
GTTTGAGATCTGGGACACAGCTGGACAGGAGCGGTATCACAGCCTGGCCCCATGTACTATCGGGGGGCCAGGC
TGCCATCGTGGTCTATGACATCACCAACACAGATACATTTGCACGGGCCAAGAAGTGGGTGAAGGAGCTACAGAG
GCAGGCCAGCCCCAACATCGTCATTGCACTCGCGGGTAACAAGGCAGACCTGGCCAGCAAGAGAGCCGTGGAATT
CCAGGAAGCACAAAGCCTATGCAGACGACAACAGTTTGCTGTTTCATGGAGACATCAGCAAAGACTGCAATGAACGT
GAACGAAATCTTCATGGCAATAGCTAAGAAGCTTCCCAAGAACGAGCCCCAGAATGCAACTGGTGCTCCAGGCCG
AAACCGAGGTGTGGACCTCCAGGAGAACAACCCAGCCAGCCGGAGCCAGTGCTGCAGCAACTGAGCCCCCTTG
CTGCCCCTGCCCCCGCCTCCTCCGCCTGAATGACCCGACTGGAATCCACTCTAACCAATCGCACTTAACGACTC
GGGCCACCACTGGGGGGGAGGGGGAGGGGTCCACCATGATTTCTCCATATAATTTTGATCATAGGCCGGAGTGA
GTCATTCCACCTGCACCTTTCTGTACAAATACTAATTCAATTTTAAGTCTTAAGTCACTTTTTTAATATATATGA
TCTTCTGCTCTTCCCACTTCCTCCCCCTTCTACTGCTCTCCCATTTTCCCTTGCTGGGAGTAGCCACATGCTCTT
GCCCCCAACCCCTTGTATATGGGGACAGTGGGGTCAGTGCAGCTACCCTTTCTTTCCCTCCTGCGGAACAGCGGA
CCCAGCAAGAGCATCCACATCCTCACTTTGTTCGGAGTGGTCTTTGGTTTGGGCGGTGGGGCAGACCTTGGGAAG
GGGCTTAGGAAGGGAGAGGCAGCTCTTCCTTCAGCTGGCTCTCATCAGGCTGCAGCCCCCTCCCCGCTCCCACCT
CCCTGCTGGGAAACCACAGCATTATCACAGCATTATTGTGACAGCCACGAACCCATTGCCACAAACCCCTCCACC
CTCGGTACCCCCAACCTCTGGCTCTGAGCCCTGTTCTGACCAAATCATGATGATGAGTATTTGGGGGTGGGTGGG
TAAGGGGGGGAGTGGGAGGGGACGGAACCACTTTTCTGTATTTTGTATTGTATGTTTTCTTCAACATGTAACC
AATCAGTATCTTGTCATATAGTCAGCCGATCGATCGACCTC

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FIGURE 4868

MAGRGGARPNGPAAGNKICQFKLVLLGESAVGKSSLVLRVKGQFHEYQESTIGAAFLTQTVCLDDTTVKFEIW
DTAGQERYHSLAPMYRGAQAAIVVYDITNTDTFARAKNWKELQRQASPNIVIALAGNKADLASKRAVEFQEAQ
AYADDNSLLFMETSAMNVNEIFMAIAKKLPKNEPQATGAPGRNRGVDLQENNPASRSQCCSN

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FIGURE 4869

CCGCTCTCCGCTGCGGGGGAGGCCATGCGGGAACCTTCCCAGGCCCGACCCCGGCCCGGCTGCGCAGCCCCGG
CCCCTTCAGTCCCCAGCCCCCTGCCCAACTCCGACTCCTGCACCCAGCCCGGCTTCAGCCCCGATTCCGACTCCC
ACCCCGGCACCAGCCCCCTGCCCAAGCTGCGAGCCCCAGCCGGCAGCACAGGGACTGGGGGGCCCCGGGGTAGGGAAGT
GGGGGGGGCCGGGAGCGGGGGGGATCCGGCTCGACCTGGCTGAGCCAGCAGCAGCGCGCCAGTCAGAGGAAGGCG
CAAGTCCGGGGGGCTGCCGCGCGCCAAGAAGCTTGAGAAGCTAGGGGTCTTCTCGGCTTGCAAGGCCAATGAAACC
TGTAAGTGTAATGGCTGGAAAAACCCCAAGCCCCCTGACCCCCGCATGGATCTGCAGCAGCCAGCTGCCAAC
CTGAGTGAGCTGTGCCGAGTTGTGAGCACCCCTTGGCTGACCACGTATCCCCTTGGAGAATGTGTGAGAGGAT
GAGATAAACCGACTGCTGGGGATGGTGGTGGATGTGGAGAATCTTTCATGTCTGTTTACAAGGAAGAGGACACA
GACACCAAGCAGGTCTATTTCTACCTCTTCAAGCTACTGCGGAAATGCATCCTGCAGATGACCCGGCCTGTGGTG
GAGGGGTCCCTGGGCAGCCCTCCATTTGAGAAACCTAATATTGAGCAGGGTGTGCTGAACTTTGTGTCAGTACAAG
TTTAGTCACCTGGCTCCCCGGGAGCGGCAGACGATGTTTCAGCTCTCAAAGATGTTCTGTCTGCTTAACTAC
TGGAAGCTTGAGACACCTGCCAGTTTCGGCAGAGGTCTCAGGCTGAGGACGTGGCTACCTACAAGGTCAATTAC
ACCAGATGGCTCTGTTACTGCCACGTGCCCGAGAGCTGTGATAGCTCCCCCGCTACGAAACCACTCATGTCTTT
GGGCGAAGCCTTCTCCGGTCCATTTTACCCTTACCCGCCGGCAGCTGCTGAAAAAGTTCCGAGTGGAAGGAC
AAATTGGTGCCCGAGAAGAGGACCCCTCATCCTCACTCACTTCCCCAAATTCCTGTCCATGTGAGGAGGAGATC
TATGGGGCAAACCTCTCCAATCTGGGAGTCAGGCTTACCATGCCACCCCTCAGAGGGGACACAGCTGGTTCCCCGG
CCAGCTTCAGTCAGTCAGTCAGCGGTGTGTTCCCAGCACCCCATCTTCAGCCCCAGCATGGGTGGGGGCAGCAACAGC
TCCCTGAGTCTGGATTCTGCAGGGGCCGAGCCTATGCCAGGCGAGAAGAGGACGCTCCCAGAGAACCTGACCCCTG
GAGGATGCCAAGCGGCTCCGTGTGATGGGTGACATCCCCATGGAGCTGGTCAATGAGGTCATGCTGACCATCACT
GACCCTGCTGCCATGCTGGGGCCTGAGACGAGCCTGCTTTCGGCCAAATGCGGCCCGGGATGAGACAGCCCGCCTG
GAGGAGCGCCGCGGCATCATCGAGTTCCATGTCTATCGGCAACTCACTGACGCCCAAGGCCAACC GGCGGGTGTG
CTGTGGCTCGTGGGGCTGCAGAAATGTCTTTTCCCACCAGCTGCCGCGCATGCCAAGGAGTATATCGCCCGCCTC
GTCTTTGACCCGAAGCACAAAGACTCTGGCCTTGATCAAGGATGGGCGGGTCATCGGTGGCATCTGCTTCCGCATG
TTTCCCACCCAGGGCTTACGGAGAATTGTCTTCTGTGCTGTACCTCGAATGAGCAGGTCAAGGGTTATGGGACC
CACCTGATGAACCACCTGAAGGAGTATCACATCAAGCACAACTTCTCTACTTCTCCTACCTACGCCGACGAGTAC
GCCATCGGCTACTTCAAAAAGCAGGGTTTCTCCAAGGACATCAAGGTGCCCAAGAGCCGCTACCTGGGCTACATC
AAGGACTACGAGGGAGCGACGCTGATGGAGTGTGAGCTGAATCCCCGCATCCCCCTACACGGAGCTGTCCACATC
ATCAAGAAGCAGAAAGAGATCATCAAGAAGCTGATTGAGCGCAAAACAGGCCCAGATCCGCAAGGTCTACCCGGGG
CTCAGCTGCTTCAAGGAGGGCGTGAGGCAGATCCCTGTGGAGAGCGTTCTTGGCATTGAGAGACAGGCTGGAAG
CCATTGGGGAAGGAGAAGGGGAAGGAGCTGAAGGACCCCGACCAGCTCTACACAACCCCTCAAAAACCTGCTGGCC
CAAATCAAGTCTCACCCAGTGCTTGGCCCTTCATGGAGCCTGTGAAGAAGTCGGAGGCCCTGACTACTACGAG
GTCATCCGCTTCCCCATTGACCTGAAGACCATGACTGAGCGGCTGCGAAGCCGCTACTACGTGACCCGGAAGCTC
TTTGTGGCCGACCTGCAGCGGTCATCGCCAACCTGTGCGAGTACAACCCCCCGGACAGCGAGTACTGCCGCTGT
GCCAGCGCCCTGGAGAAGTTCTTCTACTTCAAGCTCAAGGAGGGAGGCTCATTGACAAGTAGGCCCATCTTTGG
GCCGAGCCCTGACCTGGAATGTCTCCACCTCGGATTCTGATCTGATCCTTAGGGGGTGCCCTGGCCCCACGGAC
CCGACTCAGCTTGAGACACTCCAGCCAAGGGTCTCCGACCCGATCCTGCAGCTCTTCTGGACCTTCAGGCAC
CCCCAAGCGTGCAGCTCTGTCCAGCCTTCACTGTGTGTGAGAGGTCTCCTGGGTGGGGCCAGCCCCCTCTAGA
GTAGCTGGTGGCCAGGGATGAACCTTGCCAGCCGTGGTGGCCCCAGGCCTGGTCCCCAAGAGCTTTGGAGGCT
TGGATTCTGGGCTGGCCAGGTGGCTGTTTCCCTGAGGACCAGAACTGCTCATTTTAGCTTGAGTGATGGCTT
CAGGGGTGGAAAGTTAGCCCAAACCTGAAGGGGGCCATGCCTTGTCCAGCACTGTTCTGTGAGTCTCCCCAGGG
GTGGGGGGTATGGGGACCATTCACTCCCTGGCATTAATCCCTTAGAGGGAATAATAAAGCTTTTTATTCTCTG

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FIGURE 4870

MAEPSQAPTPAPAAQPRFLQSPAPAPTPTPAPSPASAPIPTPTPAPAPAPAAAPAGSTGTGGPGVGSGGAGSGGD
PARPGLSQQQRASQRKAQVRGLPRAKKLEKLGVSACKANETCKCNGWKNPKPPTAPRMDLQQPAANLSELCRSC
EHPLADHVSHLENVSEDEINRLLGMVVDVENLFMSVHKEEDTDTKQVYFYLFKLLRKCILQMTRPVVEGSLGSP
FEKPNIEQQVLNFVQYKFSLAPRERQTMFELSKMFLCLNYWKLETPAQFRQRSQAEDVATYKVNYTRWLCYCH
VPQSCDSLPRYETTHVFGRSLLRSIFTVTRRQLEKFRVEKDKLVPEKRTLILTHFPKFLSMLEEEIYGANSPIW
ESGFTMPPSEGTQLVPRPASVSAAVVPSTPIFSPSMGGGSNSSLSLDSAGAEMPGEKRTLPLENTLEDARLRV
MGDIPMELVNEVMLTITDPAAMLGPETSLLSANAARDETARLEERRGIEFHVIGNSLTPKANRRVLLWLVLQ
VFSHQLPRMPKEYIARLVFDPKHKTALIKDGRVIGGICFRMFPTQGFTEIVFCAVTSNEQVKGYGTHLMNHLKE
YHIKHNIYFLTYADEYAIGYFKKQGFSSDKIKVPKSRYLGYIKDYEGATLMECELNPRIPTYELSHI IKKQKEII
KKLIERKQAQIRKVYPGLSCFKEGVRQIPVESVPGIRETGWKPLGKEKGKELKDPDQLYTTLKNLLAQIKSHPSA
WPFMEPVKKSEAPDYEVIRFPIDLKTMTERLSRYVTRKLFVADLQRVIANCREYNPPDSEYCRCASALEKFF
YFKLKEGGLIDK

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FIGURE 4871

GGCACGAGGCGCGAGCTCGGAGGGCCCGGCTGGTGTGTCGGGGGGCCCCGGGAGGTTGAAAAC TAAGC**ATGGGGAA**
GAGCTGCAAGGTGGTCGTGTGTGGCCAGGCGTCTGTGGGCAAACTTCAATCCTGGAGCAGCTTCTGTATGGGAA
CCATGTAGTGGGTTTCGGAGATGATCGAGACGCAGGAGGACATCTACGTGGGCTCCATTGAGACAGACCGGGGGT
GCGAGAGCAGGTGCGTTTTCTATGACACCCGGGGGCTCCGAGATGGGGCCGAAC TGCCCCGACACTGCTTCTCTTG
CACTGATGGCTACGTCCTGGTCTATAGCACAGATAGCAGAGAGTCTTTTCAGCGTGTGGAGCTGCTCAAGAAGGA
GATTGACAAATCCAAGGACAAGAAGGAGGTCACCATCGTGGTCCTTGGCAACAAGTGTGACTTACAGGAGCAGCG
GCGTGTAGACCCAGATGTGGCTCAGCACTGGGGCCAAGTCAGAGAAGGTGAAGCTGTGGGAGGTGTCAGTGGCGGA
CCGGCGCTCCCTCCTGGAGCCCTTTGTCTACTTGGCCAGCAAGATGACGCAACCCAGAGCAAGTCTGCCTTCCC
CCTCAGCCGGAAGAACAAGGGCAGCGGCTCCTTGGATGGCT**TGA**AGAGCTGCCGTTCTCTTTACGATCCCAGCC
CCATTTTCAGTGTCTGGGGCTCTGGTAGATGTGTTGAGGGCAAAGTAGAGGACAAGCTGTCTTTCCAGTCAGCCA
GGGAGCTCCCCGCCAGGCCACGCCCCAGCCACTTTGCTCCCTCTCACCTCTGGGAAGTGCAAATACTCTTGTTG
ACATCCCTTCCCTCAGCCCTCCCAGCCTACTCCCCATCCCAGCTTTTAGAGGATCTGCTCCACTGTCTCCTGGGG
CAGTTGTGGGTCAGTGTCCCTTCCAGCTGCCCCAGACAGGAAGCAGAGTCACCACGCAGCAGTGTCCCTTCTTGG
GTCTGAGTTCCTATTATAGGTAGGGGCCCCACCCTCTGGGCTTCCCATCAGCGACACACACACTTATGGCACC
AGCCTGGACTCCAGAAAAAGGGTGTCCAGGTATTGTGTGTATGCATTTAGTTGTGCACACACAAATATGCTCCTA
TACTGGCATTAGGCGTCTCCTCATCCCTCACCCCTGACCTTTCTCCTGTCTTTTCTTGGCTGGAAGAAGTTGGCC
TCTGGGAGTGTAGTTTCTGTTTTAAATCCCCCACCCCTGGCTGGGCTCAGTGGCTCACCCCTGTAATCCCAGC
ACTTTGGGAGGCCAAGGCGGGTCGATTACTTGAGGTGAGGAGTTACGACCAGCCTGGCCAACATTGTGAAACCC
CATCTCTGCCAAAAATACAAAAGTTAGCCGGGCGTAGTGGCACATGCCTGTAATCCCAGCTACCCGGGGAGGCTG
AGGCAGGAGAATTGCTTGAAGTCAAGAGCGGAGGCTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGCCTGG
TCAACAGAGCAAGACTCCATCTCGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4872

MGKSCKVVVCGQASVGKTSILEQLLYGNHVVGSEMIETQEDIYVGSJETDRGVREQVRFYDTRGLRDGAELPRHC
FSCTDGYVLVYSTDSRESFORVELLKKEIDKSKDKKEVTIVVLGNKCDLQEQRRVDPDVAQHWAKSEKVKLWEVS
VADRRSLLEPFVYLASKMTQPQSKSAFPLSRKNKGSGSLDG

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FIGURE 4873

GGGAAGATGCGCGCTGTCTGAAGCGGCTGCAGAGCCGGTAACGGTGGTGGCGGCTGTTGGGCCAAAGGCGAAAGAC
GAAGAGGAGGAGGAAGAGGAGCCGCTGCCACCGTGCGAGGCGGTGCGCTGGGCCCCAGTGGGGGCGGTGGCGGAG
GCCCCGCTGGGGCAACCGCGTTTTTAGAAGAGGCGACGGCCGAGGAGCCTGGCGCGGCCCGGGCTCCCCGCCG
GATTCGCGCGGCGGACGCTGCGGCGGCTGCGGGCAGAGCGGCGGCGGCTGGACTCGGCGCTGCTGGCGCTGTCC
TCGCACTTCGCGCAGGTGCAGTTCCGCCTGCGCCAGGTGGTGGCGGGGCGCCGGCGGAGCAGCAGCGCTTCTG
CGGGAGCTCGAAGACTTCGCCTTCGCGGCTGCCCTCACGTCTAGGTTACGAAGGGCCCCGGCGACCCCGCCAGC
GATGAGGGCGATGGGCTGCCAGGGGACCGGCCATGGTTGCGGGGCGAGGACCAGAGTGAGCAGGAAAAGCAAGAG
CGTCTGGAAACCCAAAGGGAGAAGCAGAAAGAACTGATACTGCAGCTCAAGACCCAGCTAGATGACCTGGAAACG
TTTGCTATCAAGAGGGCAGTTATGACTCGCTGCCACAGTCCGTGGTGTGGAAAGACAGCGGGTGATCATAGAT
GAGTTAATAAAGAACTGGACATGAATCTGAATGAGGACATCAGTTCCCTGTCCACTGAAGAGCTTCGTCAGCGT
GTAGATGCAGCAGTGGCTCAGATCGTCAACCCAGCCGAGTCAAAGAACAGTTGGTTGAGCAACTGAAAACCTCAG
ATCCGAGACCTTGAGATGTTTATCAACTTCATCCAAGATGAAGTGGGAAGCCCCCTTGCGAGACAGGTGGTGACAC
TGTGAGTGCAAGGCCGGTGGGAAGACAGGAAATGGCTGCAGCAGAACAGGCAGCAGCAGAACGCCCTCCAGGAAAC
AGCAAAACAAAGGCAGAGGATGTGAAGAAAGTCCGGGAGACGGGGCTGCACCTGATGCGGCGAGCGCTGGCCGTG
CTCCAGATCTTTGCTGTTAGCCAGTTTGGTTGTGCCACAGGCCAGATCCCTCCAACCTGTGGCAGAGGGTCCAG
GCTGACAGAGACTACTCTCCCTTGCTGAAGAGGCTGGAGGTGTCAGTGGACAGAGTGAAGCAGCTAGCCTTGAGG
CAGCAGCCACATGACCATGTCATCACCTCTGCCAACCTCCAGGACCTCTCTCTGGGAGGCAAGGATGAGCTGACT
ATGGCTGTGCGGAAGGAGCTAACGGTGGCTGTGAGGGACCTGCTGGCCCATGGACTGTATGCCTCCTCCCAGGG
ATGAGCCTTGTTATGGCTCCTATTGCTTGTTTGTGTCAGCCTTCTCCTCGGCCCCAGAGGCCATGCACCCGTGG
GAGCTCTTTGTAAAGTACTACCATGCTAAGAACGGCCGTGCTTATGTGGAATCCCCAGCCCCGAAGCTCTCCAG
TCCTTCGCCCTTCTGTACGGGAGGCAGTGTGTCACCCCAACAGAGCCTACTGACAGCCATCCACATGGTG
CTGACAGAGCATGACCCTTTTAAGCGCAGTGCAGACTCAGAATGAAGGCCTTGTTGTGCATGGCACTGAATGAG
CAGCGTCTGGTGTCTGGGTGAACCTCATCTGCAAGTCCGGGTCACTCATCGAGCCTCACTACCAGCCCTGGAGC
TACATGGCACACACAGGCTTTGAGAGTGCCTCAACCTGCTCAGTCGCTCAGCAGCCTCAAGTTTAGCCTCCCT
GTAGATCTGGCTGTGCGCCAGCTCAAAAACATCAAAGATGCCTTTTGATGAGAGTGCCCTAACCCAGACAAGCT
CCTTGTTTCAGTAGGGATAGATGTGCTAGTCTTCTAGCATAGGAGCAAGGAATCAGAGGTGGGGTTAAAGGCATTT
TTCCAGACCCCTGCTCAGGCAGTCGGCCAAATGAGTGCAAAGTCTGTTTTCCCCACCAACTTAGCTCTCGGAAAG
ATGTGCTGGAGGGACCCCTCTTGTTAAGAAGGTTCTGCCAGGCCGGGCGCGGTGGCTCACACCTGTAATCCCAGCA
CTTTGGGAGGCCGAGGCGGGCGGATCACAAGGTCAGGAGTTCGAGACCATCCTGTCTAACACGGTGAAACCCCAT
CTCTACTAAAAATACAAAAAATTAGTCGGACATGGTGGCAGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAG
GCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAAGTGAGCCAAGATCGCGCCACTGCACTCCAGCCTGGGC
GACAGAGTGAGACTCCGTCTC

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FIGURE 4874

MAAVEAAAEPVTVVAAVGPKAKDEEEEEEEPLPPCEAVRWAPVGAVAEARPGATAFLEEATAEEPGAAPGSPPDS
PGRTLRLRAERRRLDSALLALSSHFAQVQFRLRQVVRGAPAEQQORLLRELEDFAFRGCPHVLGYEGPGDPASDE
GDGLPGDRPWLRGEDQSEQEKQERLETQREKQKELILQLKTQLDDLET FayQEGSYDSL PQSVVLERQ RVIIDEL
IKKLD MNLNEDISSLSTEELRQRVDAAVAQIVNPARVKEQLVEQLKTQIRDLEMFINFIQDEVGSPLQTGGGHCE
CKAGGKTGNGCSRTGSSRTPPGNSKTKAEDVKKVRETGLHLMRRALAVLQIFAVSQFGCATGQIPPTLWQRVQAD
RDYSPLLKRLEVSVDRVKQLALRQQPHDHVITSANLQDLSLGGKDELTMVRKELTVAVRDLLAHGLYASSPGMS
LVMAPIACLLPAFSSAPEAMHPWELFVKYYHAKNGRAYVES PARKLSQSFALPVTGGTVVTPKQSLLTAIHMVLT
EHD PFKRSADSELKALVCMALNEQRLVSWVNLICKSGSLIEPHYQPWSYMAHTGFESALNLLSRLSSLKFSLPVD
LAVRQLKNIKDAF

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FIGURE 4875

CTTCCCCAGCTGTGCACTCTCCATCCAGCTGTGCGCTCTCGTCGGGAGTCCCAGCCATGTCGACGAGAGAGAGG
TAGCCGAGGCAGCGACCGGGGAAGACGCCTCTTCGCCGCCTCCGAAAACCGAGGCAGCGAGCGACCCCCAGCATC
CCGCGGCCTCCGAAGGGGCCGCCGCCGCCGCCCTCGCCGCCACTGCTGCGCTGCCTAGTGCTACCCGGCTTTG
GAGGCTACGACAAGGTGAAGCTGCAGAGCCGGCCGGCAGCGCCCCCGGCCCTGGGCCCGGCCAGCTGACGCTGC
GTCTGCGGGCCTGCGGGCTCAACTTCGAGACCTCATGGCTAGGCAGGGGCTGTACGACCGTCTCCCGCCTCTGC
CTGTCACTCCGGGCATGGAGGGCGCGGGTGTGTGATCGCAGTGGGCGAGGGAGTCAGCGACCGCAAGGCAGGAG
ACCGGGTGATGGTGTGAACCGGTCAGGGATGTGGCAGGAAGAGGTGACTGTGCCCTCGGTCCAGACCTTCCTGA
TTCCTGAGGCCATGACCTTTGAGGAAGCTGCTGCCTTGCTCGTCAATTACATTACAGCCTACATGGTCTCTTTG
ACTTCGGCAACCTACAGCCTGGCCACAGCGTCTTGGTACACATGGCTGCAGGGGGTGTGGGTATGGGTGCCGTGC
AGCTGTGCCGTACAGTGGAGAATGTGACAGTGTTCGGAACGGCCTCGGCCAGCAAGCAGGAGGCACTGAAGGAGA
ATGGGGTCACACATCCCATCGACTATCACACGACTGACTACGTGGATGAGATCAAGAAGATTTCCCTAAAGGAG
TGGACATTGTATGGACCTCTGGGTGGGTGAGATACTGCCAAGGGCTACAACCTCCTGAAACCCATGGGCAAAG
TCGTACCTATGGAATGGCCAACCTGCTGACGGGCCCAAACCGGAACCTGATGGCCCTGGCCCGGACATGGTGGA
ATCAGTTTCAGCGTGACAGCTCTGCAGCTGCTGCAGGCCAACCAGGGCTGTGTGTGGCTTCCACCTGGGCTACCTGG
ATGGTGAGGTGGAGCTGGTCAGTGGTGTGGTGGCCCGCCTCCTGGCTCTGTACAACCAGGGCCACATCAAGCCCC
ACATTGACTCAGTCTGGCCCTTCGAGAAGGTGGCTGATGCCATGAAACAGATGCAGGAGAAGAAGAATGTGGGCA
AGGTCTCTCTGGTTCCAGGGCCAGAGAAGGAGAACTAGGGCAAGTGGCTGTGAGACCCTAGAGACCAGCGAAGGG
AGAAGTTGGGAAGCTACGTTCTGTTGGCCACCAGACTTGCAATTCAGCCTCTGTCAATGCTCTGCCCTCCCTC
CCCCGAAGTTCTCTGTGGTGATGACCGCTCTCCCTGCCCTCCCGCTTCTGACCTCTGAAGAGGTGGGAAG
TGACCATTTGGATGTCTGGGCCCTGCCAAGGCGACAGGGAGGGTCAGAGGGAGGGCCGGCTGCTTCTGCCCCAC
CCTTTCCCGGGCCTGCTGTGCTGCTTTTGTGCCAAGGTTAGCCAGTCCCCCTGTTGTGTTCATGTGCTTTCA
CCTCTGCCTCATCTTTCTCTCCCGTCCCTGCCCGCCACCTCCCCAAAGAATTGAAACGTCAGCTCAGGATATGGG
GCCAATCTCTGTGAGTCCAGCATGTACCTGTCTCTCCCTAGTGTCCCTTCAGCCTGGGCTGACCAAGTCCCGCCT
CTGGGCTTGACCAAGTTCCCAATCTCGTCCTCTGTCCCCAACTTCTTAAGCACAAATTGGGCTTCTTCCATCTCCAG
GTTTTCTGCCATTCTTAACCAAGGCTGCCTCTTCCAACAGGGCGGGAATCAGACCTACTCCCTAGGTCACAAC
CTGGGAAGGATACAGAGCCCCACCCTTCACTGAGTTCTCTGGATTTGTTCTCAGTGCCTTAGCAACGAAAACCT
GTGCTTGTGTGTGTGTGGCGGGGAGGGAGGATCTGTTTCCACCTCCTTCTCCTCCCTGTACTCCCGAGT
GCCTTCTTGTCTGTGTGGAGCTGGGGTTTCTCTCCTCCCGAGTCCCAACACTGCCAAAAATCTGTGTATGTG
CCATTGGGTGGGGCAGCCCCAAGCCTCCTGGGGAGGCAGGGCAAAAACAGGTGCCCTCATCGTGGTCTGTGCCAT
GTCCCGTCTCTATGGTGGTTGAGGAGAAAGGCGGGGAAGCTTCCCTCAGCCTTGAGATATGTGTGGCATTACTA
GCCAGAGCTCTGAAAGGCAGTGTGTCTGTTTCTTGTACTGGGACCAAAGTAAAAATCCAAGCACATTCCCTTG
CAGTTAGGGGAGGCCCTACTGCCTTCTCAAAGCAGAGAGGCAGCTTATCAAACCTCAGCCCAAACTCTGTTTACA
TGGGTGGGGAGATGGAGCAGGGAAGTACAGAGTGGGATGGTCAGGACCTGGGCCATTGCAACCAAAATGGGGACT
TCCTGGGTAGGGAGGTCACTCCCTCTACTCACTGAGCTAGGATTAGGGAGGGTTATTGCCCAACCATGCAATG
GGAGGTGGAGGGACAGGCTCAGCCTCCTCATTGTCTAAATGAGGCCTAAATGTGTGAAGTGCATTTCTGCTTTT
GTGTACCCCAACCAACCAATTACACAGCTGCCTTTGTGTGTTTGTGTCAATAAAAAGCCAAACCTGGGAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4876

MSDEREVAEAAATGEDASSPPPKTEAASDPQHFAASEGAAAAAASPPLLRCLVLTGFGGYDKVKLQSRPAAPPAPG
PGQLTLRLRACGLNFADLMARQGLYDRLPPLPVTPGMEGAGVVI AVGEGVSDRKAGDRVMVLNRSGMWQEEVTVP
SVQTFLLIPEAMTFEEAAALLVNYITAYMVLDFGNLQPGHSLVHMAAGGVGMAAVQLCRTVENVTVFGTASASK
HEALKENGVTHTPIDYHTTDYVDEIKKISPKGVDIVMDPLGGSDTAKGYNLLKPMGKVVTYGMANLLTGPKRNLMA
LARTWWNQFSVTALQLLQANRAVCGFHLGYLDGEVELVSGVVARLLALYNQGH IKPHIDSVWPF EKVADAMKQMQ
EKKNVGKVLVPGPEKEN

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FIGURE 4877

ATGGAGGGGCGAGCGGCCGCTGCAAGATCGTGGTGGTGGGAGACGCAGAGTGC GGCAAGACGGCGCTGCTGCAG
GTGTTCGCCAAGGACGCCTATCCCGGGAGTTATGTCCCCACCGTGTTTGAGAACTACACTGCGAGCTTTGAGATC
GACAAGCGCCGCATTGAGCTCAACATGTGGGACACTTCAGGTTCTCTTACTATGATAATGTCCGGCCTCTGGCC
TATCCTGATTCTGATGCTGTGCTCATCTGCTTCGACATTAGCCGACCAGAAACACTGGACAGTGTTCTCAAGAAG
TGGCAAGGAGAGACTCAAGAGTTCTGCCCCAATGCCAAGGTTGTGCTGGTTGGCTGTAAACTGGACATGCGGACT
GACCTGGCCACACTGAGGGAGCTGTCCAAGCAGAGGCTTATCCCTGTTACACATGAGCAGGGCACTGTGCTGGCC
AAGCAGGTGGGGGCTGTGTCTTATGTTGAGTGCTCCTCCCGTCTCTGAGCGCAGCGTCAGGGATGTCTCCAT
GTGGCTACAGTGGCCTCCCTTGGCCGTGGCCATAGGCAGCTGCGCCGAACTGACTCACGCCGGGGAATGCAGCGA
TCCGCTCAGCTGTGAGGACGGCCAGACCGGGGAATGAGGGCGAGATACACAAGGATCGAGCCAAAAGCTGCAAC
CTCATGTGA

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FIGURE 4878

MEGQSGRCKIVVVGDAECGKTALLQVFAKDAYPGSYVPTVFENY TASFEIDKRRIELNMWDTSGSSYYDNVRPLA
YPDSDAVLICFDISRPE TLDSVLKKWQGETQEFCPNAKVVLVGCKLDMRTDLATLRELSKQRLIPVTHEQGTVLA
KQVGAVSYVECSSRSSERSVRDVFHVATVASLGRGHRQLRRTDSRRGMQSAQLSGRPDRGNEGEIHKDRAKSCN
LM

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FIGURE 4879A

GGCGGAAGCAGCATCTCCGGCAGCGGCCTGGGAACCTCTTAGCTGAGCAGGCGAGAGCATCATGGATACCGACTTA
TATGATGAGTTTGGGAATTATATTGGACCAGAGCTTGATTCTGATGAAGATGATGATGAATTGGGTAGAGAGACC
AAAGATCTTGATGAGATGGATGATGATGACGACGACGATGACGTAGGAGATCATGACGATGACCACCCTGGGATG
GAGGTGGTGCATGAGGACAAGAAGTACTACCCAACAGCCGAGGAGGTGTATGGTCTGAGGTGGAGACCATA
GTTCAAGAGGAAGACACTCAGCCTCTCACAGAACCCATTATTAAGCCAGTGAAAACCAAGAAATTCACCTCTGATG
GAGCAGACATTACCTGTTACGGTGTATGAGATGGATTCTTGGCGGATCTGATGGATAACTCAGAGCTCATCAGA
AATGTGACCCTTTGTGGACATCTCCACCATGGCAAGACATGTTTTGTGGATTGTTAATTGAACAGACTCACCCG
GAAATCAGAAAGCGCTATGACCAAGATCTGTGCTATACTGACATCCTCTTCACAGAGCAAGAGAGAGGTGTAGGC
ATCAAAAGCACTCCTGTGACAGTGGTCTTGCCAGACACCAAAGGAAAATCTTATCTCTTCAATATCATGGACACT
CCAGGACATGTGAATTTCTCTGATGAGGTCACAGCTGGCTTGCGCATCTCAGATGGAGTGGTCTTTTTCATTGAT
GCTGCTGAGGGGGTGTATGCTGAACACAGAGCGGCTGATCAAGCATGCGGTGCAGGAGAGGCTGGCAGTCACTGTG
TGCATCAACAAGATTGACCGGCTGATCCTGGAGCTGAAGCTGCCCTCAACTGATGCTTATTACAAGCTGCGCCAC
ATTGTGGATGAGGTCAATGGATTAATAAGCATGTATTCCACTGATGAGAACCTGATCCTTTCCCACTCCTGGGT
AACGCTCTGCTTCTCCAGCTCCCAGTACAGCATCTGCTTCACGCTGGGCTCCTTTGCCAAGATCTATGCCGACACC
TTTGGTGACATTAATTACCAAGAATTTGCTAAAAGACTCTGGGGTGACATCTACTTCAACCCCTAAGACGCGAAAG
TTCACCAAAAAGGCCCAACTAGCAGCTCCCAGAGAAGTTTCGTGGAGTTTATCTTGGAGCCTCTTTATAAGATC
CTCGCCAGGTTGTAGGTGACGTGGACACCAGCCTCCCACGGACCCTAGACGAGCTTGGCATCCACCTGACGAAG
GAGGAGCTGAAGCTGAACATCCGCCCTTGCTCAGGCTGGTCTGCAAAAAGTTCTTTGGCGAGTTCACAGGCTTT
GTGGACATGTGTGTGCAGCATATCCCTTCTCCAAAGGTGGGCGCCAAGCCCAAGATTGAGCACACCTACACCGGT
GGTGTGGACTCCGACCTCGGCGAGGCTATGAGTGACTGTGACCTGATGGCCCCCTGATGTGCCACACTACTAAG
ATGTACAGCACAGATGATGGAGTCCAGTTTCACGCCCTTTGGCCGGGTGCTGAGTGGCACCATTATGCTGGGCAG
CCTGTGAAGGTACTGGGGGAGAACTACACCCTGGAGGATGAGGAAGACTCCCAGATATGCACCGTGGGCCGCTT
TGGATCTCTGTGGCCAGGTACCACATCGAGGTGAACCGTGTCTCTGCTGGCAACTGGGTCTGATTGAAGGTGTT
GATCAACCAATTGTGAAGACAGCAACCATAACCGAACCCCGAGGCAATGAGGAGGCTCAGATTTTCCGACCCCTTG
AAGTTCAATACCACATCTGTTATCAAGATTGCTGTGGAGCCAGTCAACCCCTCAGAGCTGCCCAAGATGCTTGAT
GGCCTGCGCAAGGTCAACAAGAGCTATCCATCCCTCACCACCAAGGTGGAGGAGTCTGGCGAGCATGTGATCCTG
GGCACTGGGGAGCTCTACCTGGACTGTGTGATGCATGATTTGCGGAAGATGTACTCAGAGATAGACATCAAGGTG
GCTGACCCAGTTGTACGTTTTGTGAGACGGTGGTGGAAACATCCTCCCTCAAGTGCTTTGCTGAAACGCCTAAT
AAGAAGAACAAGATCACCATGATTGCTGAGCCTCTTGAGAAGGGCCTGGCAGAGGACATAGAGAATGAGGTGGTC
CAGATTACGTGGAACAGGAAGAAGCTGGGAGAGTTCTTCCAGACCAAGTACGATTGGGATCTGCTGGCTGCCCGT
TCCATCTGGGCTTTTGGCCCTGATGCGACTGGCCCCAACATTCTGGTGGATGATACTCTGCCCTCTGAGGTGGAC
AAGGCTCTTCTTGGTTCAAGTGAAGGACAGCATCGTTCAAGTTTCCAGTGGGAACCAAGGGAGGGCCCCCTCTGT
GATGAATTGATTGGAATGTCAAGTTTAAGATCCTGGATGCGGTGGTTGCCAGGAGCCCCGTCACCGGGGCGGG
GGCCAGATCATCCCCACAGCCAGGAGAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT
TACTACTTTGTAGAGGTCCAGGCCCTGCAGATTGCGTCTCTGCAAGTTTATACCGTCCGCGGAGGCGCAGGGGG
CACGTGACTCAGGATGCACCCATCCCAGGCTCCCCCTCTGTACACCATCAAAGCTTTTATCCCGGCCATCGACTCT
TTTGGCTTTGAGACTGATCTCCGGACTCACACCCAGGGACAAGCCTTTTCTCTGTCTGTCTTCCACCACTGGCAG
ATTGTGCTGGTGTATCCCCTGGACAAGAGCATTGTATCCGCCCTTTGGAGCCACAGCCAGCTCCTCACCTGGCC
CGGGAATTCTATGATCAAAACCCGCCGTAGGAAGGGCCTCAGTGAAGATGTGAGCATCAGCAAAATCTTTCGATGAT
CCTATGTTGCTGGAACCTTGCCAAACAGGATGTTGTGCTCAATTACCCCATGTGAGTGCCTGGACTCCTGGGAGCT
CCTGCTCCCTACAGTGGGCTGCAACTCCTGTACTTGAAGCTGAGACCTCATATGACGTGGCCTTCGTGTTGTGAG
AGAGTGTCTGGAAGCTGCTGTTGCCATCTTGAACAACCTACCAACCTCCAACCCAGAGCCCCAGTGAGAGAGGAG
CATTTGGCCTCCTGCTTCTTCTGTGGCCTCTGCCGGGCTCCATTCCCAAGGAAAAGAGAGGAGCTTGGGCTCAC
AGAAAGAGAAGGGGATGAAACCCCAAGGGGCCCTATCTTTGGGATTTACATGGAATTTTATTTTCTACAAGTTTG
ACCTTAGCCATGGTTTGCAAGTGAACAGAACATTCTGACCTCTGTCTGCTCTGCTCCTTTTCATCCTCGTCTCCC
CTGCCCCATCTGGTGTCTTACATTCTGAATATATGTATCTCCCAAGAGGCTTCACTGCCTCTGCTTCCAGCTGCA
GCCTCCTTCTGCTGGGTCCCCAGGGAAGCCGCTGCCTTTTAATTCAGTGTTCCTATGAGCGCCAAGGCCCA
TTATTGCCCTTGTCTCCACTCCATGCTGCTTCTGGGTGGGACCTAAGATGGCTTGGGAGTTGTGGGTTCTG

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FIGURE 4879B

CGATCAGAAGTCTACCCCACCACCTCCTCAGGAAACTGCTGCCTCCCCTAAGAATCTTCCTTGCCCTGGAGTAGG
GGGCCAGAGCACTTTGATTTCAGCCATTTACTCCAAGTCCTCTCCCCAGCTACCACCAGTCCCTTACTCTGTTC
TCCCCAGTGAAAAAGAGTCTGTTGATTTTCCTC

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FIGURE 4880

AGAGCCAGAGCAGGATGGAGAGGAGACGCATCACCTCCGCTGCTCGCCGCTCCTACGTCTCCTCAGGGGAGATGA
TGGTGGGGGGCCTGGCTCCTGGCCGCCGTCTGGGTCTGGCACCCGCCTCTCCCTGGCTCGAATGCCCCCTCCXA
CTCCCGACCCGGGTGGATTTCTCCCTGGCTGGGGCACTCAATGCTGGCTTCAAGGAGACCCGGGCCAGTGAGCGG
GCAGAGATGATGGAGCTCAATGACCGCTTTGCCAGCTACATCGAGAAGGTTGCTTCTGGAACAGCAAAACAAG
GCGCTGGCTGCTGAGCTGAACCAGCTGCGGGCCAAGGAGCCACCAAGCTGGCAGACGCTTACCAGGCTGAGCTG
CGAGAGCTGCGGGCTGCGGGCTCGATCAACTCACCGCCAACAGCGCCCGGCTGGAGGTTGAGAGGGACAATCTGGCA
CAGGACCTGGCCACTGTGAGGCAGAAGCTCCAGGATGAAACCAACCTGAGGCTGGAAGCCGAGAACAACCTGGCT
GCCTATAGACAGGAAGCAGATGAAGCCACCCTGGCCCGTCTGGATCTGGAGAGGAAGATTGAGTCGCTGGAGGAG
GAGATCCGGTTCTTGAGGAAGATCCACGAGGAGGAGGTTGCGGAACCTCAGGAGCAGCTGGCCCGACAGCAGGTC
CATGTGGAGCTTGACGTGGCCAAGCCAGACCTCACCGCAGCCCTGAAAGAGATCCGCACGCAGTATGAGGCAATG
GCGTCCAGCAACATGCATGAAGCCGAAGAGTGGTACCGCTCCAAGTTTGACAGACCTGACAGACGCTGCTGCCCCG
AACGCGGAGCTGCTCCGCCAGGCCAAGCACGAAGCCAACGACTACCGGCCCGAGTTGACGTCTTGACCTGCGAC
CTGGAGTCTCTGCGCGGCACGAACGAGTCCCTGGAGAGGCAGATGCGCGAGCAGGAGGAGCGGCACGTGCGGGAG
GCGGCCAGTTATCAGGAGGCGCTGGCGCGGCTGGAGGAAGAGGGGCAGAGCCTCAAGGACGAGATGGCCCCGCCAC
TTGCAGGAGTACCAGGACCTGCTCAATGTCAAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTA
GAGGGCGAGGAGAACCAGGATCACCATTCCCGTGCAGACCTTCTCCAACCTGCAGATTGAGAAACCAGCCTGGAC
ACCAAGTCTGTGTGAGAAGGCCACCTCAAGAGGAACATCGTGGTGAAGACCGTGGAGATGCGGGATGGAGAGGTC
ATTAAGGAGTCCAAGCAGGAGCACAAGGATGTGATGTGAGGCAGGACCCACCTGGTGGCCTCTGCCCCGTCTCAT
GAGGGGCCCCGAGCAGAAGCAGGATAGTTGCTCCGCCCTCTGCTGGCACATTTCCCCAGACCTGAGCTCCCCACCAC
CCCAGCTGCTCCCCCTCCCTCCTCTGTCCCTAGGTGAGCTTGTGCCCCTAGGCTCCGTGAGTATCAGGCCTGCCAG
ACGGCACCCACCCAGCACCCAGCAACTCCAACCTAACAAGAACTCACCCCCAAGGGGCGAGTCTGGAGGGGCATGG
CCAGCAGCTTGCCTTAGAATGAGGAGGAAGGAGAGAAGGGGAGGAGGGCGGGGGGCACCTACTACATCGCCCTCC
ACATCCCTGATTCTGTGTTTATGGAACTGTTGCCAGAGATGGAGGTTCTCTCGGAGTATCTGGGAACCTGTGCC
TTTGAGTTTCTCAGGCTGCTGGAGGAAAACCTGAGACTCAGACAGGAAAGGGAAAGGCCCCACAGACAAGGTAGCC
CTGGCCAGAGGCTTGTGTTTGTCTTTTGGTTTTATGAGGTGGGATATCCCTATGCTGCCTAGGCTGACCTTGAAC
TCCTGGGCTCAAGCAGTCTACCCACCTCAGCCTCCTGTGTAGCTGGGATTATAGATTGGAGCCACCATGCCAGC
TCAGAGGTTGTTCTCCTAGACTGACCCTGATCAGTCTAAGATGGGTGGGGACGTCTGCCACCTGGGGCAGTCA
CCTGCCCAGATCCAGAAGGACCTCCTGAGCGATGACTCAAGTGTCTCAGTCCACCTGAGCTGCCATCCAGGGAT
GCCATCTGTGGGCACGCTGTGGGCAGGTGGGAGCTTGATTCTCAGCACTTGGGGGATCTGTTGTGTACGTGGAGA
GGGATGAGGTGCTGGGAGGGATAGAGGGGGGCTGCCTGGCCCCCAGCTGTGGGTACAGAGAGGTCAAGCCCAGGA
GACTGCCCCGTGCAGACTGGAGGGGACGCTGGTAGAGATGGAGGAGGAGGCAATTGGGATGGCGCTAGGCATAC
AAGTAGGGGTTGTGGGTGACCAGTTGCACTTGGCCTCTGGATTGTGGGAATTAAGGAAGTGACTCATCTCTTGA
AGATGCTGAAACAGGAGAGAAAGGGGATGTATCCATGGGGGCAGGGCATGACTTTGTCCCATTTCTAAAGGCCTC
TTCCTTGCTGTGTCATACCAGGCCGCCCCAGCCTCTGAGCCCCCTGGGACTGCTGCTTCTTAACCCAGTAAGCCA
CTGCCACACGTCTGACCCCTCCACCCCATAGTGACCGGCTGCTTTTCCCTAAGCCAAGGGCCTCTTGGCGTCCC
TTCTTACTCACACACAAAATGTACCCAGTATTCTAGGTAGTGCCCTATTTTACAATTGTAAACTGAGGCACGAG
CAAAGTGAAGACACTGGCTCATATTCTGACGCTTGGAGGCCGGGTGCTCAGGGCTGACACGTCCACCCAGTGC
ACCCACTCTGCTTTGACTGAGCAGACTGGTGAGCAGACTGGTGGGATCTGTGCCAGAGATGGGACTGGGAGGGC
CCACTTCAGGGTTCTCCTCTCCCCCTCTAAGGCCGAAGAAGGGTCTTCCCTCTCCCCAAGACTTGGTGTCTTTTC
CCTCCACTCCTTCCCTGCCACCTGCTGCTGCTGCTGCTGCTAATCTTCAGGGCACTGCTGCTGCCTTTAGTCGCTG
AGGAAAAATAAGACAAATGCTGCGCCCTT

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FIGURE 4881

CCTCTCTCCGGGCCGTGCCTCCAAGATGACAAAGAAAAGAAGGAACAATGGGCGTGCCAAAAAGGGCCGCGGCCA
CCTGCAACCTATTTCGCTGCACTAACTGTGCCCAGTGCGTGCCCAAGGACAAGGCCATTAAGAAATTCGTCATTTCG
AAACATAGTGGAGGCCGCAACAGTCAGGGACATTTCTGAAGTGAGCGTCTTCGATGCCTATGTGCTTCCCAAAC
GTATGTGAAGCTACATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCG
CAAGGACCGAACACCCCCACCCCGATTAGACCTGCGGGTGCTGCCCCAGGTCCCCACCAAAGCCCATGTAAGG
AGCTGAGTTCTTAAAGACTGAAGACAGGCTATTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

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FIGURE 4882

MTKKRRNNGRAKKGRGHLQPIRWTNCARCVPKDKGIKKFVIRNIVEAATVRDISEVSVFDAYVLPKLYVKLHYCV
SCAIHSKVVRNRSREARKDRTPPPRFRPAGAAPGPPPKPM

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FIGURE 4883A

GGCACGAGGCTGCTCTCGCAACTCAAGATGCGGACGAGAGTGAGACAGCAGTGAAGCCGCCGGCACCTCCGCTG
CCGCAGATGATGGAAGGGAACGGGAACGGCCATGAGCACTGCAGCGATTGCGAGAATGAGGAGGACAACAGCTAC
AACCGGGGTGGTTTGTAGTCCAGCCAATGACACTGGAGCCAAAAAGAAGAAAAAGAAAAAGAAAGAAAGAA
AAAGGCAGTGAGACAGATTAGCCAGGATCAGCCTGTGAAGATGAACCTTTGCCAGCAGAGAGGATCCAGGAA
ATACAGAAGGCCATTGAGCTGTTCTCAGTGGGTGAGGGACCTGCCAAAACCATGGAGGAGGCTAGCAAGCGAAGC
TACCAGTTCTGGGATACGCAGCCCGTCCCCAAGCTGGGCGAAGTGGTGAACACCCATGGCCCCGTGGAGCCTGAC
AAGGACAATATCCGCCAGGAGCCCTACACCCTGCCCCAGGGCTTCACCTGGGATGCTTTGGACTTGGGCGATCGT
GGTGTGCTAAAAGAAGTGTACACCCTCCTGAATGAGAATATGTGGAAGATGATGACAACATGTTCCGATTGAT
TATTCGCCGAGTTTCTTTTGTGGGCTCTCCGGCCACCCGGCTGGCTCCCCCAGTGGCACTGTGGGGTTCGAGTG
GTCTCAAGTCGGAATTTGGTTGGGTTTATTAGCGCCATCCAGCAACATCCATATCTATGACACAGAGAAGAAG
ATGGTAGAGATCAACTTCTGTGTGTCCACAAGAAGCTGCGTTCCAAGAGGGTTGCTCCAGTTCTGATCCGAGAG
ATCACCAGGCGGGTTTACCTGGAGGGCATCTTCCAAGCAGTTTACACTGCCGGGGTGGTACTACCAAAGCCCGTT
GGCACCTGCAGGTATTGGCATCGGTCCCTAAACCCACGGAAGCTGATTGAAGTGAAGTTCTCCACCTGAGCAGA
AATATGACCATGCAGCGCACCATGAAGCTCTACCGACTGCCAGAGACTCCCAAGACAGCTGGGCTGCGACCAATG
GAAACAAAGGACATTCCAGTAGTGCACCAGCTCCTCACCAGGTACTTGAAGCAATTTACCTTACGCCCGTCATG
AGCCAGGAGGAGGTGGAGCACTGGTTCTACCCCCAGGAGAATATCATCGACACTTTCGTGGTGGAGAACGCAAAC
GGAGAGGTGACAGATTTCTGAGCTTTTATACGCTGCCCTCCACCATCATGAACCATCCAACCCACAAGAGTCTC
AAAGCTGCTTATTCTTTCTACAACGTTTACACCCAGACCCCTCTTCTAGACCTCATGAGCGACGCCCTTGTCTC
GCCAAAATGAAAGGGTTTGTATGTGTTCAATGCACTGGATCTCATGGAGAACAACCTTCTCGAGAAGCTCAAG
TTTGGCATAGGGGACGGCAACCTGCAGTATTACCTTTACAATTGGAATGCCCCAGCATGGGGGAGAGAAGGTT
GGACTGGTGCTACAATAACCAGTCACCAGTGCGATTCTGGATAAAGCCACTGAAAATTCGAACCAGGAAATGGAA
CCCCACCACTGTTGGTCCAATTTTACACACGTGAGAATCCCTGGCAAAGGGAGCAGAACTGAACCGGCTTTACC
AAACCGCCAGCGAAGTTGACAATTGTATTGCGATGGCGTGGGCTGCGTGACGTCACTCCGGTCTGTCTCTGGT
CTCCGTGTTTTCCAGTTAATTACATCCTCATGCAGCCGTGATCAAGGGAATGTAAGTGTGAAAACTAGCTCGTG
ATTGGCATATAATGGAGTTAACGGGTGAATAATAAAGTATATATATATATATATATAAATATTTTTAAAT
ATCTTTTCATGTTCCAAATGTACAAGGATGTTTGGTCTTTAATGAAAAGCTGAATCTAGATCATTCTCAGAAATGA
GGACCCGAGGACAGTGGCAGACAGACGCGTTGGCACAGTTTATGGTTTCTCCAGAGGAGACATTGGCTTATCAT
GGGGAAGATGGAACAGGCTCAGATCTCATGGGATAGCACGTGGAGCTCTTGGCTGGGGCTGACCCTGGGCAGGGA
CTTTCTGCAGGGCCAGACCTGCCTGCATTCTGAGACAAAGCAATGGACGGTCCGAGAAAGCAGACCTCATTGAT
TGAGTCTTTCTTCCATCCCTTGGCCTGCTCCCTGTAGGAAGTCATCTGCCAACTGATTTAAAAGGGCTCTTT
AGCCAGTTGTTGCCAACCTTATAGGGATGAGTCCCTGTGAGATTTTGTCTTTCCACTGCCTGGGATGATGCAGT
TTGAAGAGGCCCTTGGACCTCCTTGTAACATCAGGGACCTTGGAGACCATTATCAGTGTAAGCCCTGCTTAGCT
CATCTTAGAGCAAAGAGCCAGCACCCTGATGTCCTGGGGTGGCTAGGCAGGAGTGGCGTGGGGCCAATACCCAG
ACCCCTTCAGCCACCAGCCCTGGCCTGTGCCTTCCAACCCATTAGCCATTTCTTGTGTGCCCTTTCCAAGAT
ACAGCCTGCAAGTGGTAGCAAGAAGTGATTAGAGGAGATCTGGACTTGGCAACAGAAGTGGTTTCCCATCTCCA
TTGTCTGAGTCTGATTTTCGCTGATGCTGTTTTGTGGATTTTGTGGTAGTGATGGTTGTGAGTGTGCCAGTTT
CCAAAACGTAATCAAGCCTCTGGTCACATGGCTGTCGATGTAGGCATTTCTGGAGTGGTGTTCAGCCAAGTGACC
GGGCAAAATTTGGGCTGTGAAATTGTACTTCCAGGCTGGATGTAATTTTGTCTTAGAGAGAAGCAAGTGGTGGG
AAGGAGGTAGCATGACGTGTGGTGTGCGGGTTTCTTGTGCGCTCACCTCTCCGCTCATACAGGAATGAAGCCT
TAGCCAGGAGGCCAGGCTCAGCCCTGTGCCACTCACCGAAGCCACTTTCTACAGGCCAGCAGGGGCTTGTGTCAG
GCTGTGGGTTTTGGTGTGGTTTTGTGAGAGGCTAATTTCTGCAGAGTTTCCAAAACAGAGACATCGTATGCTTGG
GATGGGGGCCGTGCCACCCGTGGGAATGCTGCCGCTCTGCAGACTGCTGCTAGAGCCAGCAACTCCACTAAGGT
GGATTTTTCATCAGGGGCCCTGCAGGGCCCTCCCTTTTCCCATTTGTTCTGCGCTGCAAATTCAGGCCCCAGCAAT
CGTGAAGTACGTTTTGCTCCTTGAAGTCCAAAGAACTGAGACCAAAGAGCTGCTGTTCTTAGCAAGATGCGCACTG
CATTCCACAGGTGGGAGGAGTCGGAGAGGCAGGGGCTTGGCTTTGCAGCCCCACAGACAACAGTTGCACAGTGCCT
CAAGCCCCAGAGTGGCTCACCCTGTCCAGACCTTTGAGGATATCAAAGGACAAAGTGCCCAAGTCTTTCTACCT
TGGGGGAACCTGGAACCTGGAAAGGCTCCCTGTCTAGTCTTGATCTGTTCTGGGCCAGGTCCAGCTTGAGCTG

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FIGURE 4883B

CCTCTGAGATTGTTGGGCTGTGCGGATCTCTGGAGTGAGCTCTGTTTCGGTTGACCCAGGTCATGGAATGGAAACGG
TGAGGCCCCAGTGGCTGTTCTGGAAGAAACAGATCTCCTGGCAAAGGCCCCAGCATCTCCCTCACTGAAACCAGG
TGGCCGGCTCCTCGGACTCTGCTTTATGTTGCGGTGAGAACTCTGCCAGGTGTGCAGGGTTTGGCTTGTGGGCT
GCTTGCTGCTCATCTGATTTTTGTCCAGTAGTCCCTGCGTTCTTCATTCAACCCCTTCTGGGACTTCAGCTCAG
AGAGCACCATCCCGGGGGTCAAGGCCCTCCCCACAGGAGCCCTGCAGTGTGGTAGCGCCATGGCTGTCTCAAACCA
AGCAAAGGAAGGACCCTGAGGCCCTCACGCTAACCATCCTCGAGCAACTGCTGTTGGAAGGCCCTCCCTGGGCCTG
GCCCCACCCTCTGCCACCCAGTCCCTCCAGCTGCCATGTTTCAAAGACGACCTTTACCTCCTGCCTTTGGATTG
ACTCTGCATTTGACCACGGACTCCAGTCTGTGTGTAGGGAGAGAGCTGAGTAGGAGGCCCTCCACTCCGGATCGAG
GCCTGTATAGGGCTCGTTTCCCCACACATGCCTATTTCTGAAGAGGCTTCTGTCTTATTTGAAGGCCAGCCCACA
CCCAGCTACTTTAACACCAGGTTTATGGAAAATGTCAGGCCCTTCCCCACAACCTCCTGTCTAACTGCTGTGCCCC
CCTACTTGCTGGCTCTCAGAAGCCTAGGGGAGTCCCTGTGGTCCTGAATTCTTTCCCCAAAGACGACCAGCATTT
AACCAACCTAAGGGCCCAAAGGCCCTTGGACAACATGCATGGAGCTGCACTCTAGGAGAAGGAGGGGAACCAGATGT
TAGATCAGGGGAGGGAGCAGGAGTGTCCCTCCCGTCAGTGCCCTACCCACCTGTGAGGCAGCCTTCTGATGGCCTG
GCCACCTTCCCCAGAACCAGGGGAGGCCCTGAGGCTTCAGTTTTACTCTGCTGCAAAATGAAGGCGGGCCTGCAA
GCCGACTACACCTACGGAGGCTGTTGAGGACAATTCATTCCATTAAATTAAAAAATACTGACTGGCTGGCAGGC
AGGTGCCATGTCTGGGAACAGGGACGGGGGAGCTTCACCTTTTTGTCTTGGCTTTTCTTTGGGCTGTGGGGGGGC
ATCCATTTCAGGGTCGGGGAGGAAATACCAAAATGCATTGTTGTTCTGCTCAATACATCTCACTTGTTTCTAATA
AAGAAAGCAGCTGAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4884

MADESETAVKPPAPPLPQMMEGNGNGHEHCSDCENEEDNSYNRGGLSPANDTGAKKKKKKQKKKKEKGSETDSAQ
DQPVKMNSLPAERIQEIQKAIELFSVGQGPAKTMEEASKRSYQFWDTPVPKLGEEVVNTHGPEPDKDNIRQEPY
TLPQGFTWDALDLGDRGVLKELYTLLNENYVEDDDNMFRFDYSPEFLLWALRPPGWLPGWHCGVRVVSSRKLVGF
ISAIPANIHIDTEKKMVEINFLCVHKKLRSKRVPVLIREITRRVHLEGIFQAVYTAGVVLPPKPVGTCTRYWHR
LNPRKLIIEVKFSLSRNMTMQRTMKLYRLPETPKTAGLRPMETKDIPVVHQLLTRYLKQFHLTPVMSQEEVEHWF
YPQENIIDTFVVENANGEVTDFLSFYTLPTIMNHPHKSLSKAAYSFYNVHTQTPLLDLMSDALVLAKMKGFDVF
NALDLMENKTFLEKLKFGIGDGNLQYYLYNWKCPSMGAEKVGLVLQ

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FIGURE 4885

TTCGCTCGCCGCTCGCTCAGAGCCGGGGCCGGGCCAGAGCGGGCGCCCGCTGCCCTGTCCCCGCGTGCAGACCC
CGGGCCCCGGCCCCGGCCCCCGCCAAGCCATGCTGTGCGGGCGCTGGAGGCGTTGCCGCCGCCGCCGAGGAGC
CCCCGGTGGCCGCCAGGTTCGAGCCCCAAGTCGCGGGCGCGGTTCGCTCTCCCGTCCCCGCCGACTCCCTCCGATG
GCGGCACCAAGAGGCCCGGGCTGCGGGCGCTGAAGAAGATGGGCCTGACGGAGGACGAGGACGTGCGCGCCATGC
TGCGGGGCTCCCGCTCCGCAAGATCCGCTCGCGCACGTGGCACAAGGAGCGGCTGTACCGGTGCAGGAGGACG
GCCTGAGCGTGTGGTTCCAGCGGGCGCATCCCGCTGCGCCATCGCAGCACATCTTCTTCGTGCAGCACATCGAGG
CGGTCCGCGAGGGCCACAGTCCGAGGGCCTGCGGGCGCTTCGGGGGTGCCTTCGCGCCAGCGCGCTGCCTCACCA
TCGCTTCAAGGGCCGCCAAGAACCTGGACCTGGCGGGCGCCACGGCTGAGGAAGCGCAGCGCTGGGTGCGCG
GTCTGACCAAGCTCCGCGCGCGCTGGACGCCATGAGCCAGCGCGAGCGGCTAGACCACTGGATCCACTCCTATC
TGCACCGGGCTGACTCCAACCAGGACAGCAAGATGAGCTTCAAGGAGATCAAGAGCCTGCTGAGAATGGTCAACG
TGGACATGAACGACATGTACGCCTACCTCCTCTTCAAGGAGTGTGACCACTCCAACAACGACCGTCTAGAGGGGG
CTGAGATCGAGGAGTTCCTGCGCGGCTGCTGAAGCGGCCGGAGCTGGAGGAGATCTTCCATCAGTACTCGGGCG
AGGACCGCGTGTGAGTGCCCTGAGCTGCTGGAGTTCCTGGAGGACCAGGGCGAGGAGGGCGCCACACTGGCCC
GCGCCCAGCAGCTCATTACAGACCTATGAGCTCAACGAGACAGCCAAGCAGCATGAGCTGATGACACTGGATGGCT
TCATGATGTACCTGTTGTGCGCGGAGGGGGCTGCCTTGGACAACACCCACACGTGTGTGTTCCAGGACATGAACC
AGCCCCTTGCCCACTACTTCATCTCTTCTCCACAACACCTATCTGACTGACTCCCAGATCGGGGGGCCAGCA
GCACCGAGGCCTATGTTAGGGCTTTGCCAGGGATGCCGCTGCGTGGAGCTGGACTGCTGGGAGGGGCCAGGAG
GGGAGCCCGTCATCTATCATGGCCATACCTTCACTCCAAGATTCTCTTCCGGGACGTGGTCCAAGCCGTGCGCG
ACCATGCCTTCACGCTGTCCCTTACCTGTCTATCCTATCCCTGGAGAACCCTGCGGGCTGGAGCAGCAGGCTG
CCATGGCCCGCCACCTCTGCACCATCCTGGGGGACATGCTGGTGACACAGGCGCTGGACTCCCCAAATCCCGAGG
AGCTGCCATCCCCAGAGCAGCTGAAGGGCCGGGTCTGGTGAAGGGAAAGAAGTTGCCCGCTGCTCGGAGCGAGG
ATGGCCGGGCTCTGTGGATCGGGAGGAGGAGGAGGAGGATGACGAGGAGGAAGAAGAGGAGGTGGAGGCTGCAG
CGCAGAGGCGGCTGGCCAAGCAGATCTCCCCGGAGCTGTGCGCCCTGGCTGTGTACTGCCACGCCACCCGCCTGC
GGACCTTGACCCCTGCCCCCAACGCCCCACAACCTGCCAGGTCAGCTCCCTCAGCGAGCGCAAAGCCAAGAAAC
TCATTGGGAGGCGAGGGAACAGCTTTGTAGGCACAAATGCCCGCCAGCTGACCCGCGTGTACCCGCTGGGGCTGC
GGATGAACTCAGCCAACCTACAGTCCCCAGGAGATGTGGAATCGGGCTGTGAGCTGGTGGCCTTGAACCTCCAGA
CGCCAGGCTACGAGATGGACCTCAATGCCGGGCGCTTCCTAGTCAATGGGCAGTGTGGCTACGTCTAAACCTG
CCTGCCTGCGGCAACCTGACTCGACCTTTGACCCCGAGTACCCAGGACCTCCCAGAACCCTCTCAGCATCCAGG
TGCTGACTGCACAGCAGCTGCCCAAGCTGAATGCCGAGAAGCCACACTCCATTGTGGACCCCTGGTGCGCATTG
AGATCCATGGGGTGCCCGCAGACTGTGCCGGGCGAGGAGTACTACGTGCTCAACAATGGCTTCAACCCCCGCT
GGGGGCAGACCTGCAGTTCCAGCTGCGGGCTCCGGAGCTGGCACTGGTCCGGTTGTGGTGGAAGATTATGACG
CCACCTCCCCCAATGACTTTGTGGGCCAGTTTACACTGCCTCTTAGCAGCCTAAAGCAAGGGTACCGCCACATAC
ACCTGCTTTCCAAGGACGGGGCCTCACTGTCACCAGCCACGCTCTTCATCCAAATCCGCATCCAGCGCTCCTGAG
TAGCTGGGACTACAGGCACAGGCCACCACACCTGGCTAATGTTTAAATTTATGTAGAGATGGCGGGGGGGCGG
GGGTCTCCCTATGCTGCCCAGGCTGGTCTCGAGCTCCTGACCTCAAGTGATCCTCCTGCCCCAGCATTCCAAAGT
GCTGGGATTACAGGTGTGAGCCACTGCCTGGCTGGCCGTAGGTTTGAAGTGTTCATAGAAGAGCCCTGGAGA
AGACAGTAGAATGAGCCTATCTAGTTTAAAAAATAAAGAAGCACGTTGATTTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4886

MLCGRWRRRCRRPPEEPPVAAQVAAQVAAPVALPSPPTPSDGGTKRPGLRALKKMGLTEDEDVRAMLRGSRRLRKIR
SRTWHKERLYRLQEDGLSVWFQRRIPRAPSQHIFVQHI EAVREGHQSEGLRRFGGAFAPARCLTIAFKGRRKNL
DLAAPTAEAAQRWVRGLTKLRARLDAMSQRERLDHWIHSYLHRADSNQDSKMSFKEIKSLLRMVNVDMNDMYAYL
LFKECDHSNNDRLLEGAEIEEFLLRLLKRPELEEIFHQYSGEDRVLSAPELLEFLQEGEGATLARAQQLIQTYE
LNETAKQHELMTLDGFM MYLLSPEGAALDNTHTCVFQDMNQPLAHYFISSSHNTYLTDSQIGGPSSTEAYVRAFA
QGCRCVELDCWEGPGGEPVIYHGHTLTLSKILFRDVVQAVRDHAFTLSPYPVILSLENHCGLEQQAAMARHLCTIL
GDMLVTQALDSPNPEELPSPEQLKGRVLVKGKKLPAARSEDGRALSDREEEEDDEEEEEEVEAAAQRRRLAKQIS
PELSALAVYCHATRLRTLHPAPNAPQPCQVSSLSEKAKKLIREAGNSFVRHNARQLTRVYPLGLRMNSANYSPQ
EMWNSGCQLVALNFQTPGYEMDLNAGRFLVNGQCGYVLKPACLRQPDSTFDPEYPGPPRTTLSIQVLTAQQLPKL
NAEKPHSIVDPLVRIEIHGVPADCARQETDYVLNNGFNPRWGQTLQFQLRAPELALVRFVVEDYDATSPNDFVGQ
FTLPLSSLKQGYRHIHLLSKDGASLSPATLFIQIRIQRS

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FIGURE 4887CGGCCACGAGGCGGAATCCCTTCTGCTCTCCAGCGCAGCGCCGCCGCCGCCCTCCAGCTTCCCGGACCATG

GCCAACCTGGAGCGCACCTTCATCGCCATCAAGCCGGACGGCGTGACGCGGGCCTGGTGGGCGAGATCATCAAG
CGCTTCGAGCAGAAGGGATTCCGCCTCGTGGCCATGAAGTTCCTCCGGGCCTCTGAAGAACACCTGAAGCAGCAC
TACATTGACCTGAAAGACCGACCATTCTTCCTGGGCTGGTGAAGTACATGAACCTCAGGGCCGGTTGTGGCCATG
GTCTGGGAGGGGCTGAACGTGGTGAAGACAGGCCGAGTGATGCTTGGGGAGACCAATCCAGCAGATTCAAAGCCA
GGCACCATTTCGTGGGGACTTCTGCATTAGGTTGGCAGGAACATCATTTCATGGCAGTGATTGAGTAAAAAGTGCT
GAAAAAGAAATCAGCCTATGGTTTAAGCCTGAAGAACTGGTTGACTACAAGTCTTGTGCTCATGACTGGGTCTAT
GAATTAAGAGGTGGACACAACAGCAGTCTCCTTCAGCACGGCGTGGTGTGTCCCTGGACACAGCTCTTCATTCCAT
TGACTTAGAGGCAACAGGATTGATCATTCTTTTATAGAGCATATTTGCCAATAAAGCTTTTGGAAGCCGG

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FIGURE 4888

MANLERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVAMKFLRASEEHLKQHYIDLKDRPFFPGLVKYMNSGPVVA
MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVKSAEKEISLWFKPEELVDYKSCAHDWV
YE

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FIGURE 4889

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG
GAAGGAACCATGSCCAACTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG
AACTGGATCTATGAAATGACAGGAGGGCAGACCACATTGCTTTTCACATCCATTTCCCCTCCTTCCCATGGGCAGA
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACTTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAATGCTTCCTCCAGC

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FIGURE 4890

MANCERTFIAIKPDGVQRGLVGEI I KRFEQKGFR LVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA
MVWEG LNVVKTGRV MLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNWI
YE

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FIGURE 4891

GACAACTTGAGCTGAAAGCGAAAACTATGCTGACCAGATTAGCAGACTTGAAGAAAGAGAAGCAGAACTGAAGA
AGGAATATAATGCATTACATCAAAGACACACTGAGATGATCCATAATTATATGGAACATTTAGAAAGAACAAAAC
TTCATCAGCTCTCAGGGAGTGATCAACTAGAATCCACAGCTCATAGTAGAATTAGAAAAGAAGCCCTATATCAT
TAGGAATTTTCCCATTACCTGCTGGAGATGGATTGCTTACACCTGATGCTCAGAAAGGAGGAGAGACCCCTGGAT
CTGAGCAATGGAATTTAGGAATTAAGTCAACCACGTTCTCATACCAGCCTGAAGGATGAGCTTTCTGATGTTA
GCCAAGGCGGATCTAAAGCTACCACTCCAGCATCAACAGCTAATTCAGATGTGGCAACAATTCCTACTGATACTC
CCTTAAAGGAAGAAAACGAAGGATTTGTGAAGGTTACAGATGCGCCAAATAAATCAGAGATAAGCAAACACATTG
AAGTACAGGTAGCCCAGGAACTAGAAATGTATCTACTGGCTCTGCTGAAAATGAAGAAAAGTCAGAAGTTCAAG
CAATCATCGAATCTACTCCTGAGCTGGATATGGACAAAGATCTCAGTGGATATAAAGGTTCAAGCACTCCCACCA
AAGGCATAGAGAACAAAGCTTTTGATCGCAATACAGAATCTCTCTTTGAAGAAGTGTCTTCAGCTGGCTCAGGCC
TAATAGGAGATGTGGATGAAGGAGCAGATTTACTAGGAATGGGTGCGGAAGTTGAGAATCTTATATTAGAAAATA
CACAAGTGTGGAACCAAAAATGCTTTGAACATAGTGAAGAATGATTTGATAGCAAAAGTGGATGAAGTACCT
GTGAGAAAGATGTGCTGCAAGGGGAATTGGAGGCTGTGAAGCAAGCCAAACTGAACTAGAGGAAAAGAACAGAG
AATTGGAGGAAGAGCTTAGGAAAGCTCGGGCAGAAGCTGAAGATGCAAGGCAAAAAGCAAAAGATGACGATGATA
GTGATATTTCCACAGCCCAGAGGAAACGGTTTACTAGAGTAGAAATGGCCCCGTGTTCTCATGGAGCGAAACAGT
ATAAAGAGAGATTGATGGAGCTTCAGGAAGCTGTCGATGGACAGAGATGATTCGGGCATCACGAGAAAATCCAG
CCATGCAGGAAAAAAAAGGTCAAGCATTTTGGCAGTTTTTCAGCCGACTTTTCAGCTCCTCAAGTAACACGACTA
AGAAGCCTGAACCACCTGTTAATCTGAAGTACAATGCACCCACGTCTCATGTTACTCCGTCCGTCAAGAAAAGAA
GCAGCACCTTATCTCAGCTCCCTGGGGATAAGTCCAAAGCCTTTGATTTCCCTTAGTGAAGAACTGAAGCTAGTT
TAGCCTCACGCAGAGAACAAAAGAGAGAGCAGTATCGTCAGGTAAAAGCACATGTTTCAAGGAAGACGGTAGAG
TGCAGGCTTTTGGCTGGAGTCTGCCTCAGAAGTACAAACAGGTAACCAATGGTCAAGGTGAAAATAAGATGAAAA
ATTTACCTGTGCCTGTCTATCTCAGACCTCTGGATAAAAAAGATACATCAATGAAGCTGTGGTGTGCTGTTGGAG
TCAATTTATCTGGTGGGAAGACCAGAGATGGTGGTTCTGTTGTTGGAGCAAGTGTATTTTACAAGGATGTTGCTG
GTTTGGATACAGAAGGCAGTAAACAGCGAAGTGCCCTCTCAGAGTAGTTTAGATAAGTTAGATCAGGAAGTTAAGG
AACAGCAGAAGGAGTTAAAAATCAAGAAGAATTATCCAGTCTAGTTTGGATCTGTACCAGCACTCATTGCGCTA
CAAAAGTTCTTATTATTGATGCTGTTCAACCTGGCAACATCCTAGACAGTTTCACTGTTTGCAACTCTCATGTTT
TGTGCATTGCAAGTGTGCCAGGTGCACGAGAAACAGACTACCTGCAGGAGAAGATCTTTCAGAATCTGGTCAGG
TAGACAAAGCATCTTTATGTGGAAGTATGACAAGCAACAGCTCAGCAGAGACAGACAGCCTGTTAGGAGGCATCA
CAGTGGTTGGTTGTTCTGCAAGGTGTGACGGGAGCTGCCACTTCCCCTAGTACAAATGGTGCTTCTCCAGTGA
TGGATAAACACCAGAAATGGAAGCAGAAAATAGTGAGGTTGATGAAAATGTTCCACAGCAGAAGAAGCAACTG
AAGCTACAGAAGGGAATGCGGGTCAGCTGAAGACACAGTGGACATCTCCCAACTGGCGTCTACACAGAGCATG
TCTTTACAGATCCTTTGGGAGTTCAGATCCCAGAAGACCTCTCCCAAGTGTATCAGTCGAGGTATAATAATGGGT
CATCAACTTAGGCAACTGGGTGAAGTGCACAAATAAAGGAACCAAAATAATCTCAACAGTCAAAAGATTTCCTCA
CTAATTAGTGTCACTGTGGTGGATTAAAAGATACCTATTCTTGTGATA

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FIGURE 4892

MIHNYMEHLERTKLHQLSGSDQLESTAHSRIRKERPISLGIFPLPAGDGLLTPDAQKGGETPGSEQWKFQELSOP
RSHTSLKDELSDVSQGGSKATTPASTANSDVATIPTDTPLKEENEGFVKVTDAPNKSEISKHIEVQVAQETRNVS
TGSANEKSEVQAI IESTPELDMDKDLGSGYKGSSTPTKGIENKAFDRNTESLFEELSSAGSGLIGDVDEGADLL
GMGREVENLILENTQLLETKNALNIVKNDLIAKVDELTCEDVLQGELEAVKQAKLKLEKNRELEEELRKARAE
AEDARQKAKDDDDSDIPTAQRKRFRVEMARVLMERNQYKERLMELQEAVRWTEMIRASRENPAEQEKKRSSIWQ
FFSRLFSSSSNTTKKPEPPVNLKYNAPTSHVTPSVKKRSSSTLSQLPGDKSKAFDFLSEETEASLASRREQKREQY
RQVKAHVQKEDGRVQAFGWSLPQKYKQVTNGQGENKMKNLPPVYLRPLDKKDTSMKLWCAVGVNLSGGKTRDGG
SVVGASVFYKDVAGLDTEGSKQRSASQSSLDKLDQELKEQQKELKNQEELSSLVWICTSTHSATKVLIIIDAVQPG
NILDSTVCNSHVLCIASVPGARETDYPAGEDLSESGQVDKASLCGSMTSNSSAETDSLGGITVVGCSAEGVTG
AATSPSTNGASPVMDKPPPEMAENSEVDENVPTAEATEATEGNAGSAEDTVDISQTVYTEHVFTDPLGVQIPE
DLSPVYQSRYNNGSST

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FIGURE 4893A

CTCCGGCGCCCGCTCTGCCCGCCGCTGGGTCCGACCGCGCTCGCCTTCCTTGCGAGCCGCGCCTCGGCCCCATGGA
CGCCCTGTGCGGTTCCGGGGAGCTCGGCTCCAAGTTCTGGGACTCCAACCTGTCTGTGCACACAGAAAACCCGGA
CCTCACTCCCTGCTTCCAGAACTCCCTGCTGGCCTGGGTGCCCTGCATCTACCTGTGGGTGCGCCCTGCCCTGCTA
CTTGCTCTACCTGCGGCACCATTGTCTGTGGCTACATCATCTCTCCACCTGTCCAAGCTCAAGATGGTCTCTGGG
TGTCCTGTCTGGTGCCTCTCTGGGCGGACCTTTTTTACTCCTTCCATGGCCTGGTCCATGGCCGGGCCCCCTGC
CCCTGTTTTCTTTGTACCCCCCTTGGTGGTGGGGGTACCATGCTGCTGGCCACCCTGCTGATACAGTATGAGCG
GCTGCAGGGCGTACAGTCTTCGGGGGTCTCTATTATCTTCTGGTTCTGTGTGGTCTGCGCCATCGTCCCATT
CCGCTCCAAGATCCTTTTAGCCAAGGCAGAGGGTGAGATCTCAGACCCCTTCCGCTTACCACCTTCTACATCCA
CTTTGCCCTGGTACTCTCTGCCCTCATCTTGGCCTGCTTCAGGGAGAAACCTCCATTTTTCTCCGCAAAGAATGT
CGACCCTAACCCCTACCCTGAGACCAGCGCTGGCTTTCTCTCCCGCCTGTTTTCTGGTGGTTACAAAGCTGCT
AAACCTGACCCTCTGCGGGGCTGCTGCGGGGCTTACCTCCCCCAGGATGGCCATCTATGGCTACCGGCATC
CCCTGGAGGAGAAGGACCTCTGGTCCCTAAAGGAAGAGGACAGATCCCAGATGGTGGTGCAGCAGCTGCTGGAGG
CATGGAGGAAGCAGGAAAAGCAGACGGCAGCAGACAAGGCTTCAGCAGCACCTGGGAAAAATGCCTCCGGCGAGG
ACGAGGTGCTGCTGGGTGCCCCGGCCAGGCCCGGAAGCCCTCCTTCTGAAGGCCCTGCTGGCCACCTTCGGCT
CCAGCTTCCTCATCAGTGCTGCTTCAAGCTTATCCAGGACCTGCTCTCCTTCATCAATCCACAGCTGCTCAGCA
TCCTGATCAGGTTTATCTCCAACCCCATGGCCCCCTCCTGGTGGGGCTTCTGGTGGCTGGGCTGATGTTCTGT
GCTCCATGATGCAGTCGCTGATCTTACAACACTATTACCCTACATCTTTGTGACTGGGGTGAAGTTTCGTA
GGATCATGGGTGTCATCTACAGGAAGGCTCTGGTTATACCAACTCAGTCAAACGTGCGTCCACTGTGGGGGAAA
TTGTCAACCTCATGTGAGTGATGCCAGCGCTTCATGGACCTTGCCCCCTTCTCAATCTGCTGTGGTCAGCAC
CCCTGCAGATCATCCTGGCGATCTACTTCTCTGGCAGAACCTAGGTCCCTCTGTCTGGCTGGAGTCGCTTTCA
TGGTCTTGCTGATTCCACTCAACGGAGCTGTGGCCGTGAAGATGCGCGCCTTCCAGGTAAAGCAAATGAAATTGA
AGGACTCGCGCATCAAGCTGATGAGTGAATCCTGGACGGCATCAAGGTGCTGAAGCTGTACGCTGGGAGCCCA
GCTTCTGAAGCAGGTGGAGGGCATCAGGCAGGCTGAGCCCCAGCTGCTGCGCACGGCGGCCTACCTCCACACCA
CAACCACCTTACCTGGATGTGCAGCCCCCTTCTGGTGACCTGATCACCCTCTGGGTGTACGTGTACGTGGACC
CAAACAATGTGCTGGACGCCGAGAAGGCCCTTGTGTCTGTGTCTTGTGTTAATATCTTAAGACTTCCCTCAACA
TGCTGCCCCAGTTAATCAGCAACCTGACTCAGGCCAGTGTGTCTCTGAAACGGATCCAGCAATTCTGAGCCAAG
AGGAACTTGACCCCAAGAGTGTGGAAAGAAAGACCATCTCCCCAGGCTATGCCATCACCATACACAGTGGCACCT
TCACCTGGGCCCAGGACCTGCCCCCACTCTGCACAGCCTAGACATCCAGGTCCCGAAAGGGGCACTGGTGGCCG
TGGTGGGGCTGTGGGCTGTGGGAAGTCTCCTGGTGTCTGCCCTGCTGGGAGAGATGGAGAAGCTAGAAGGCA
AAGTGCACATGAAGGGCTCCGTGGCCTATGTGCCCCAGCAGGCATGGATCCAGAACTGCACTCTTCAGGAAAACG
TGCTTTTCGGCAAAGCCCTGAACCCCAAGCGCTACCAGCAGACTCTGGAGGCCTGTGCCTTGCTAGCTGACCTGG
AGATGCTGCCTGGTGGGATCAGACAGAGATTGGAGAGAAGGGCATTAACTGTCTGGGGGCCAGCGGCAGCGGG
TCAGTCTGGCTCGAGCTGTTTACAGTGATGCCGATATTTCTTGTCTGGATGACCCACTGTCCGCGGTGGACTCTC
ATGTGGCCAAGCACATCTTTGACCACGTATCGGGCCAGAAGGCGTGCTGGCAGGCAAGACGCGAGTGCTGGTGA
CGCACGGCATTAGCTTCTTCCCTGCCCCAGACAGACTTCATCATTTGTGCTAGCTGATGGACAGGTGTCTGAGATGGGCC
CGTACCCAGCCCTGCTGCAGCGCAACGGCTCCTTTGCCAACTTTCTCTGCAACTATGCCCCGATGAGGACCAAG
GGCACCTGGAGGACAGCTGGACCGCTTGGAAGGTGCAGAGGATAAGGAGGCACTGCTGATTGAAGACACACTCA
GCAACCACACGGATCTGACAGACAATGATCCAGTACCTATGTGTTCCAGAAGCAGTTTATGAGACAGCTGAGTG
CCCTGTCTCTCAGATGGGGAGGGACAGGGTTCGGCCTGTACCCCGAGGACCTGGGTCCATCAGAGAAGGTGCAGG
TGACAGAGGCGAAGGCAGATGGGGCACTGACCCAGGAGGAGAAAGCAGCCATTGGCACTGTGGAGCTCAGTGTGT
TCTGGGATTATGCCAAGGCCGTGGGGCTCTGTACCACGCTGGCCATCTGTCTCCTGTATGTGGGTCAAAGTCGGG
CTGCCATTGGAGCCAATGTGTGGCTCAGTGCTTGGACAAATGATGCCATGGCAGACAGTAGACAGAAACACTT
CCCTGAGGCTGGGCGTCTATGCTGCTTTAGGAATTCTGCAAGGGTTCTTGGTGATGCTGGCAGCCATGGCCATGG
CAGCGGGTGGCATCCAGGCTGCCCCGTGTGTTGCACCAGGCACTGCTGCACAACAAGATACGCTCGCCACAGTCCT
TCTTTGACACCACACCATCAGGCCGCATCCTGAACTGCTTCTCCAAGGACATCTATGTGCTTGTAGAGTTCTGG
CCCCTGTCTATCCTCATGCTGCTCAATTCTTCTTCAACGCCATCTCCACTCTTGTGGTCACTATGGCCAGCACGC
CGCTCTTCACTGTGGTCACTCTGCCCCGTGGCTGTGCTCTACACCTTAGTGCAGCGCTTCTATGCAGCCACATCAC
GGCAACTGAAGCGGCTGGAATCAGTCAGCCGCTCACCTATCTACTCCACTTTTTCGGAGACAGTGACTGGTGCCA

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FIGURE 4893B

GTGTCATCCGGGCTACAACCGCAGCCGGGATTTTGAGATCATCAGTGATACTAAGGTGGATGCCAACCAGAGAA
GCTGCTACCCCTACATCATCTCCAACCGGTGAGAAGCCGCCCTCCCTCGCTCCCTGCTCCTCCAGGAATTCACAGC
AGGCTCTCTGGTGTTTCAGGGTCCCTTGTCCTCCTTTCCCTTAAGCAGAAAACCTGGCCCTGCCCTGCCCTGCCCT
ATTTCTCTCATCTGATCCCCATAGGTGGCTGAGCATCGGAGTGGAGTTCGTGGGGAACCTGCGTGGTGTCTT
TGCTGCACTATTTGCCGTGTCGCGGAGGAGCAGCCTGAACCCGGGGCTGGTGGGCCTTTCTGTGTCTTACTCCTT
GCAGGTGACATTTGCTCTGAACCTGGATGATACGAATGATGTGAGATTTGGAATCTAACATCGTGGCTGTGGAGAG
GGTCAAGGAGTACTCCAAGACAGAGACAGAGGCCGCCCTGGGTGGTGGAAGGCAGCCGCCCTCCCGAAGGTTGGCC
CCCACGTGGGGAGGTGGAGTTCGGAATTATTTCTGTGCGCTACCGGCCGGGCTAGACCTGGTGTGAGAGACCT
GAGTCTGCAATGTGCACGGTGGCGAGAAGGTGGGGATCGTGGGCCGCACTGGGGCTGGCAAGTCTTCCATGACCCT
TTGCTGTTCGCGATCCTGGAGGCGGCAAGGGTGAAATCCGCATTGATGGCCTCAATGTGGCAGACATCGGCCT
CCATGACCTGCGCTCTCAGCTGACCATCATCCCGCAGGACCCCATCCTGTTCTCGGGGACCCTGCGCATGAACCT
GGACCCCTTCGGCAGCTACTCAGAGGAGGACATTTGGTGGGCTTTGGAGCTGTCCACCTGCACACGTTTGTGAG
CTCCCAGCCGGCAGGCCTGGACTTCCAGTGCTCAGAGGGCGGGGAGAATCTCAGCGTGGGCCAGAGGCAGCTCGT
GTGCTGGCCCCGAGCCCTGCTCCGCAAGAGCCGCATCCTGGTTTTAGACGAGGCCACAGCTGCCATCGACCTGGA
GACTGACAACCTCATCCAGGCTACCATCCGCACCCAGTTTGATACCTGCACTGTCTGACCATCGCACACCGGCT
TAACACTATCATGGACTACACCAGGGTCTTGGTCTGGACAAAGGAGTAGTAGCTGAATTTGATTCTCCAGCCAA
CCTCATTGCAGCTAGAGGCATCTTCTACGGGATGGCCAGAGATGCTGGACTTGCCTAAAATATATTCTGAGATT
TCCTCCTGGCCTTTCTTGGTTTTATCAGGAAGGAAATGACACCAAATATGTCCGCAGAATGGACTTGATAGCAA
ACACTGGGGGCACCTTAAGATTTTGACCTGTAAAGTGCCTTACAGGGTAACTGTGCTGAATGCTTTAGATGAGG
AAATGATCCCCAAGTGGTGAATGACACGCCTAAGGTCACAGCTAGTTTGAGCCAGTTAGACTAGTCCCCCGGTCT
CCCGATTCCCAACTGAGTGTTATTTGCACACTGCACTGTTTTCAAATAACGATTTTATGAAATGACCTCTGTCT
CCCTCTGATTTTTCATATTTTCCTAAAGTTTCGTTTCTGTTTTTAATAAAAAGCTTTTTCTCCTGGAACAGAA
GACAGCTGCTGGGTGAGGCCACCCCTAGGAACCTCAGTCTGTACTCTGGGGTGTGCTGCTGAATCCATTAAAAATG
GGAGTACTGATGAAATAAACTACATGGTCAACAGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4894

MDALCGSGELGSKFWDNSLSVHTENPDLTPCFQNSLLAWVPCIYLWVALPCYLLYLRRHCRGYIILSHLSKCLKMV
LGVLLWCVSWADLFYSFHGLVHGRAPAPVFFVTPLVVGVTMLLATLLIQYERLQGVQSSGVLIIFWFLCVVCAIV
PFRSKILLAKAEGEISDPFRFTTFYIHFALVLSALILACFREKPPFFSAKNVDPNPYPETSAGFLSRLFFWWFTK
LLNPDPLRGCLPGFTSPQDGHLLWPASPGGEGPLVPKGRGQIPDGGAAAAGGMEEAGKADGTTQGFSSWEKCLR
RGRGAAGCPAQAPEALLPEGPAGHLRLQLPHQCLLQAYPGPALLHQSTAAQHPDQVYLQPHGPLLVLPGGWADV
PVLHDAVADLTITLLPLHLCDWGEVSYWDHGCHLQEGSGYHQLSQTCVHCGGNCQPHVSGCPALHGPCPLPQSAVV
STPADHPGDLLPLAEPRSLCPGWSRFHGLADSTQRSCGREDARLPGKANEIEGLAHQADE

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FIGURE 4895A

CTCCGGCGCCCGCTCTGCCCGCCGCTGGGTCCGACCGCGCTCGCCTTCCTTGAGCCGCGCCTCGGCCCCATGGA
CGCCCTGTGCGGTTCCGGGGAGCTCGGCTCCAAGTTCTGGGACTCCAACCTGTCTGTGCACACAGAAAACCCGGA
CCTCACTCCCTGCTTCCAGAACTCCCTGCTGGCCTGGGTGCCCTGCATCTACCTGTGGGTCGCCCTGCCCTGCTA
CTTGCTCTACCTGCGGCACCATTTGTCGTGGCTACATCATCTCTCCACCTGTCCAAGCTCAAGATGGTCTGGG
TGTCCTGCTGTGGTGCCTCTCTGGGCGGACCTTTTTTACTCCTTCCATGGCCTGGTCCATGGCCGGGCCCCCTGC
CCCTGTTTTCTTTGTACCCCTTGGTGGTGGGGTACCATGCTGCTGGCCACCCTGCTGATACAGTATGAGCG
GCTGCAGGGCGTACAGTCTTCGGGGTCTCTATTATCTTCTGGTTCTGTGTGGTCTGCGCCATCGTCCCAT
CCGCTCCAAGATCCTTTTAGCCAAGGCAGAGGGTGAATCTCAGACCCCTTCGGCTTACCACCTTCTACATCCA
CTTTGCCCTGGTACTCTCTACCCTCATCTTGGCCTGCTTCAGGAGAAAACCTCCATTTTTCTCCGCAAAGAATGT
CGACCCTAACCCCTACCCTGAGACCAGCGCTGGCTTTCTCTCCCGCTGTTTTCTGGTGGTTACAAAGATGGC
CATCTATGGCTACCGGCATCCCCTGGAGGAGAAGGACCTCTGGTCCCTAAAGGAAGAGGACAGATCCAGATGGT
GGTGCAGCAGCTGCTGGAGGCATGGAGGAAGCAGGAAAAGCAGACGGCAGACACAAGGCTTCAGCAGCACCTGG
GAAAAATGCCTCCGGCGAGGACGAGGTGCTGCTGGGTGCCCGGCCAGGCCCGGAAGCCCTCCTTCTGAAGGC
CCTGCTGGCCACCTTCGGCTCCAGCTTCCTCATCAGTGCTGCTTCAAGCTTATCCAGGACCTGCTCTCCTTCAT
CAATCCACAGCTGCTCAGCATCCTGATCAGGTTTATCTCCAACCCATGGCCCCCTCCTGGTGGGGCTTCTCTGGT
GGCTGGGCTGATGTTCTGTGCTCCATGATGCAGTCGCTGATCTTACAACACTATTACCACTACATCTTTGTGAC
TGGGGTGAAGTTTCGTACTGGGATCATGGGTGTCATCTACAGGAAGGCTCTGGTTATCACCACCTCAGTCAAACG
TGCGTCCACTGTGGGGGAAATTGTCAACCTCATGTGAGTGATGCCAGCGCTTCATGGACCTTGCCCCCTTCT
CAATCTGCTGTGGTCAGCACCCCTGCAGATCATCTGGCGATCTACTTCTCTGGCAGAACCTAGGTCCCTCTGT
CCTGGCTGGAGTCGCTTTCATGGTCTTGTGATTCCACTCAACGGAGCTGTGGCCGTGAAGATGCGCGCCTTCCA
GGTAAAGCAAATGAAATTGAAGGACTCGCGCATCAAGCTGATGAGTGAGATCCTGAACGGCATCAAGGTGCTGAA
GCTGTACGCCCTGGGAGCCCAGCTTCCTGAAGCAGGTGGAGGGCATCAGGCAGGGTGAGCTCCAGCTGCTGCGCAC
GGCGGCCCTACCTCCACACCACAACCACCTTACCTGGATGTGCAGCCCCCTTCTGGTGACCCCTGATCACCCCTCTG
GGTGATCGTGACGTGGACCCAAACAATGTGCTGGACGCCGAGAAGGCCTTTGTGTCTGTGCTTGTGTTAATAT
CTTAAGACTTCCCCTCAACATGCTGCCCCAGTTAATCAGCAACCTGACTCAGGCCAGTGTGTCTCTGAAACGGAT
CCAGCAATTCTGAGCCAAGAGGAACTTGACCCCCAGAGTGTGGAAAGAAAGACCATCTCCCCAGGCTATGCCAT
CACCATACAGTGGCACCTTACCTGGGCCCAGGACCTGCCCCCACTCTGCACAGCCTAGACATCCAGGTCCC
GAAAGGGGCACTGGTGGCCGTGGTGGGGCTGTGGGCTGTGGGAAGTCTCCCTGGTGTCTGCCCTGCTGGGAGA
GATGGAGAAGCTAGAAGGCAAAGTGACATGAAGGGCTCCGTGGCCTATGTGCCCCAGCAGGCATGGATCCAGAA
CTGCACTCTCAGGAAAACGTGCTTTTCGGCAAAGCCCTGAACCCCAAGCGCTACCAGCAGACTCTGGAGGCCTG
TGCTTGTAGCTGACCTGGAGATGCTGCCTGGTGGGGATCAGACAGAGATTGGAGAGAAGGGCATTAACTGTG
TGGGGGCCAGCGGCAGCGGGTCAGTCTGGCTCGAGCTGTTTACAGTGATGCCGATATTTTCTTGTGATGACCC
ACTGTCCGCGGTGGACTCTCATGTGGCCAAGCACATCTTTGACCACGTATCGGGCCAGAAGGCGTGTGGCAGG
CAAGACGCGAGTGTGGTGACGCACGGCATTAGCTTCTGCCCCAGACAGACTTCATCATTGTGCTAGCTGATGG
ACAGGTGTCTGAGATGGGCCCCGTACCCAGCCCTGCTGCAGCGCAACGGCTCCTTTGCCAACTTTCTCTGCAACTA
TGCCCCCGATGAGGACCAAGGGCACCTGGAGGACAGCTGGACCGCGTTGGAAGGTGCAGAGGATAAGGAGGCACT
GCTGATTGAAGACACACTCAGCAACCACACGGATCTGACAGACAATGATCCAGTCACCTATGTGGTCCAGAAGCA
GTTTATGAGACAGCTGAGTGCCCTGTCTCAGATGGGGAGGACAGGGTCGGCCTGTACCCCGAGGCACCTGGG
TCCATCAGAGAAGGTGCAGGTGACAGAGGCGAAGGCAGATGGGGCACTGACCCAGGAGGAGAAAGCAGCCATTGG
CACTGTGGAGCTCAGTGTGTTCTGGGATTATGCCAAGGCCGTGGGGCTCTGTACCACGCTGGCCATCTGTCTCCT
GTATGTGGGTCAAAGTGCGGCTGCCATTGGAGCCAATGTGTGGCTCAGTGCCTGGACAAATGATGCCATGCGAGA
CAGTAGACAGAAACAACACTTCCCTGAGGCTGGGCGTCTATGCTGCTTTAGGAATTCTGCAAGGGTTCTTGGTGAT
GCTGGCAGCCATGGCCATGGCAGCGGGTGGCATCCAGGCTGCCCGTGTGTTGCACCAGGCACTGCTGCACAACAA
GATACGCTCGCCACAGTCTTTCTTTGACACCACACCATCAGGCCGATCCTGAAGTGTCTTCCAAGGACATCTA
TGTCGTTGATGAGGTTCTGGCCCTGTCTATCTCATGCTGCTCAATTCTTCTTCAACGCCATCTCCACTCTGT
GGTCATCATGGCCAGCACGCCGCTCTTCACTGTGGTCTCTGCCCCCTGGCTGTGCTCTACACCTTAGTGCAGCG
CTTCTATGCAGCCACATCAGGCAACTGAAGCGGCTGGAATCAGTCAGCCGCTCACCTATCTACTCCACTTTTC
GGAGACAGTGAAGTGGTGCCAGTGTATCCGGGCCTACAACCGCAGCCGGGATTTTGAATCATCAGTGATACTAA

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FIGURE 4895B

GGTGGATGCCAACCAGAGAAGCTGCTACCCCTACATCATCTCCAACCGGTCAGAAGCCGCTCCCTCGCTCCCTG
CTCCTCCAGGAATTCACAGCAGGCTCTCTGGTGTTTCAGGGTCCTTGTCCTCCTTTCCCCTAAGCAGAAAAGTGG
CCCTGCCCTGCCCTGCCCATTTCTCTCTCATCTGATCCCCCATAGGCGGCTGAGCATCGGAGTGGAGTTCGTG
GGGAAC TGCGTGGTGCTCTTTGCTGCACTATTTGCCGTATCGGGAGGAGCAGCCTGAACCCGGGGCTGGTGGGC
CTTTCTGTGTCCTACTCCTTGCAAGGTGACATTTGCTCTGAACTGGATGATACGAATGATGTCAGATTTGGAATCT
AACATCGTGGCTGTGGAGAGGGTCAAGGAGTACTCCAAGACAGAGACAGAGGCGCCCTGGGTGGTGGAGGCAGC
CGCCCTCCCGAAGGTTGGCCCCACGTGGGGAGGTGGAGTTCGGGAATTATTCTGTGCGCTACCGGCCGGGCCTA
GACCTGGTGCTGAGAGACCTGAGTCTGCATGTGCACGGTGGCGAGAAGGTGGGGATCGTGGGCCGCACTGGGGCT
GGCAAGTCTTCCATGACCCTTTGCTGTTCGTCATCCTGGAGGCGGCAAAGGTGAAATCCGCATTGATGGCCTC
AATGTGGCAGACATCGGCCTCCATGACCTGCGCTCTCAGCTGACCATCATCCCGCAGGACCCCATCCTGTTCTCG
GGGACCCCTGCGCATGAACCTGGACCCCTTCGGCAGCTACTCAGAGGAGGACATTTGGTGGGCTTTGGAGCTGTCC
CACCTGCACACGTTTGTGAGCTCCCAGCCGGCAGGCTGGACTTCCAGTGCTCAGAGGGCGGGGAGAATCTCAGC
GTGGGCCAGAGGCAGCTCGTGTGCTGGCCCGAGCCCTGCTCCGCAAGAGCCGCATCCTGGTTTTAGACGAGGCC
ACAGCTGCCATCGACCTGGAGACTGACAACCTCATCCAGGCTACCATCCGCACCCAGTTTGATACCTGCACTGTC
CTGACCATCGCACACCGGCTTAACACTATCATGGACTACACCAGGGTCCTGGTCCTGGACAAAGGAGTAGTAGCT
GAATTTGATTCTCCAGCCAACCTCATTGCAGCTAGAGGCATCTTCTACGGGATGGCCAGAGATGCTGGACTTGCC
TAAAATATATTCCTGAGATTTCTCTCTGGCCTTTCTGGTTTTTCATCAGGAAGGAAATGACACCAAATATGTCCG
CAGAATGGACTTGATAGCAAACACTGGGGGCACCTTAAGATTTTGCACCTGTAAAGTGCCTTACAGGGTAAGTGT
GCTGAATGCTTTAGATGAGGAAATGATCCCCAAGTGGTGAATGACACGCCTAAGGTACACAGCTAGTTTGAGCCAG
TTAGACTAGTCCCCCGGTCTCCCGATTCCCAACTGAGTGTATTATTTGCACACTGCACTGTTTTCAAATAACGATTT
TATGAAATGACCTCTGTCTCTCTCTGATTTTTTCATATTTTCTAAAGTTTCGTTTTCTGTTTTTAATAAAAAGC
TTTTTCTCTCTGGAACAGAAGACAGCTGCTGGGTGAGGCCACCCCTAGGAACTCAGTCTGTACTCTGGGGTGCT
GCCTGAATCCATTAAAAATGGGAGTACTGATGAAATAAACTACATGGTCAACAGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4896

MDALCGSGELGSKFWDSNLSVHTENPDLTPCFQNSLLAWVPCYILWVALPCYLLYLRRHHCRGYIILSHLSKLMV
LGVLLWCVSWADLFYSFHGLVHGRAPAPVFFVTPLVGVMTLLATLLIQYERLQGVQSSGVLIIFWFLCVVCAIV
PFRSKILLAKAEGEISDPFRFTTFYIHFALVLSTLILACFREKPPFFSAKNVDPNPYPETSAGFLSRLFFWWFTK
MAIYGYRHPLEEKDLWSLKEEDRSQMVVQQLLEAWRKQEKQTARHKASAAPGKNASGEDEVLLGARPRPRKPSFL
KALLATFGSSFLISACFKLIQDLSFINPQLLSILIRFISNPMAPSWWGFLVAGLMFLCSMMQSLILQHYYHYIF
VTGVKFRGTGIMGVIYRKALVITNSVKRASTVGEIVNLSVDAQRFMDLAPFLNLLWSAPLQIILAIYFLWQNLGP
SVLAGVAFMVLLIPLNGAVAVKMRAFQVKQMKLKDSRIKLMSEILNGIKVLKLYAWEPSFLKQVEGIRQGELOLL
RTAAYLHTTTTTFTWMCSPFLVTLITLWVYVYVDPNNVLDAEKAFVSVSLFNILRLPLNMLPQLISNLTQASVSLK
RIQQFLSQEELDPQSVERKTIISPGYAITIHSGTFTWAQDLPPTLHSLDIQVPKGALVAVVGPVGCCKSSLVSALL
GEMEKLEGKVHMKGSVAYVPQQAQWQIQLQENLVFGKALNPKRYQQTLEACALLADLEMLPGGDQTEIGEKGIN
LSGGQRQVRSLARAVYSDADIFLLDDPLSAVDSHVAKHIFDHVIGPEGVLAKTRVLVTHGISFLPQTDFFIIVLA
DGQVSEMGPYPALLQRNGSFANFLCNYPDEDQGHLEDSWTALEGAEDKEALLIEDTLNHTDLTDNDPVTYVVQ
KQFMRQLSALSSDGEGQGRPVPRRHLGPSEKVQVTEAKADGALTQEEKAAIGTVELSVFWDYAKAVGLCTTLAIC
LLYVGQSAAGANVWLSAWTNDAMADSRQNNLSRLGVYAALGILQGLVMLAAMAMAAGGIQAARVLHQALLH
NKIRSPQSFFDTTPSGRILNCFSKDIYVDEVLPVILMLLNSFFNAISTLVVIMASTPLFTVVILPLAVLYTLV
QRFYAATSRLKRLESVSRSPYSHFSETVTGASVIRAYNRSRDFEII SDTKVDANQRSCYPYIISNRSEAASLA
PCSSRNSQQALWCSGSLSLSPKQKTGPALPLPHFLLI

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FIGURE 4897

GTGCTGCCTGGCGCTGGCTAGGAGGCAAACGCACGCGGGAAGAGCTGCTACCCATTCCAGGGACCCTGCCGCTGC
CCCTCTGAGGGGTCTGCACCTCCTGGGAGCAGGTGGGTCTCTGGGACGAGGGTCCATGGTGGATGGCTCTGGAGA
CGCTCCCGAGGGTGTGCCGTCCCGCTGCTGCACAGGTCGGAGGGTCACCGCAGAGGCTACTCGGGCTGGGGCTGG
GGCCGAGGGAGCCCGCACTGGAGCCCCATGTGGAACCCAAGGATGCAGCTGCTCTGCTAACACGGCAGCCCATCC
TTCAAGACTGTGACCTCGCCACAGTGGCCCTCAGCCCTCCACCTCCGGCGGGGGCGAGGGCCACCCACCTCCAAG
TCTCCAGCCATGACGACCTCCGCACTCCGGCGCCAGGTGAAGAACATCGTGCACAATACTCCGAGGCAGAAATC
AAGGTGCGCGAGGGCCACCAGCAATGACCCCTGGGGCCCCCTAGTTTCGCTCATGTCCGAGATCGCTGACCTGACC
TTCAACACAGTGGCCCTTACCAGAGTCATGGGCATGCTGTGGCGCGGCTCAATGACAGCGGCAAGAAGTGGCGG
CACGTGTACAAGGCTCTAACATTGCTGGACTACCTGCTCAAGACGGGCTCCGAGCGGGTGGCCACCAGTGCCGC
GAGAACCTCTACACCATCCAGACACTCAAGGACTTCCAGTACATCGACCGCGACGGCAAGGACCAGGGCGTCAAC
GTGCGCGAGAAGGTCAAGCAGGTGATGGCCCTGCTCAAGGATGAGGAGCGGCTGCGGCAGGAGCGAACCCACGCC
CTCAAGACCAAGGAGCGCATGGCACTGGAGGGCATCGGCATTGGCAGTGGGCAGCTGGGCTTCAGCCGCCGCTAC
GGCGAGGACTACAGCCGCTCCCGGGGCTCCCCGCTCCTCTCAACTCCTCCTCTTCGTCACCCGCTATACCTCC
GACCTGGAGCAGGCCCCGGCCTCAGACGTCAGGGGAAGAGGAAGTGCAGCTGCAGCTGGCCCTCGCCATGAGCCGT
GAGGAGGCAGAGAAGCCTGTCCCCCAGCCTCCACAGGGACGAGGACCTGCAGCTGCAGCTGGCTCTGCGCCTG
AGCCGGCAGGAGCACGAGAAGGAGGTGAGGTCTTGGCAGGGTGATGGCTCCCCATGGCCAATGGTGCAGGGGCC
GTGGTCCACCATCAGCGGGACAGAGAGCCTGAGAGAGAAGAGAGAAAGGAGGAGGAGAAGCTAAAAACCAGCCAG
TCCTCCATCCTGGACTTGGCTGACATCTTCGTACCTGCCCTGGCCCCGCCCTCCACACACTGCTCTGCTGACCCA
TGGGACATCCCAGGTTTTAGGCCGAACACAGAGGCCAGTGGATCCTCCTGGGGGCCTTCTGCAGACCCCTGGTCT
CCGATCCCCCTCAGGAACCGTCTGTCCCGAAGCCAGCCCTGGGATCTGACTCCCATGCTCTCCTCCTCTGAGCCC
TGGGGCAGGACCCAGTGCTGCCTGCTGGGCCCCCACCACAGACCCCTGGGCCCTGAAGTCTCCCCACCACAAA
CTCCCCAGCACTGGGGCTGACCCTTGGGGAGCCTCCCTGGAGACCTCCGACACACCTGGTGGTGCCTCGACCTTT
GACCCATTTGCCAAACCTCCAGAATCCACAGAGACCAAGGAGGGGCTGGAGCAGGCCCTGCCCTCTGGGAAGCCC
AGCAGCCCTGTGGAGCTGGACCTGTTTGGAGACCCAGCCCCAGTTCCAAGCAAAATGGCACGAAGGAGCCAGAT
GCCCTGGACCTGGGCATACTAGGGGAAGCACTAACCAGCCAAGCAAGAGGGCCCGAGCTTGCCGGACTCCCGAG
TCCTTCCTGGGTCCCTCAGCTTCCTCCTTGGTCAACCTTGACTCGTTGGTCAAGGCACCCCAAGTTGCAAAGACC
CGGAACCCCTTCTTGACAGGTCTCAGCGCTCCGTCCCCACCAACCCGTTTCGGCGCGGGCGAGCCGGGCAGGCCG
ACGCTAAACCAGATGCGCACCGGCTCGCCGGCGCTGGGCTGGCAGGCGGGCCTGTGGGGGCGCCCTGGGCTCC
ATGACCTACAGCGCCTCTCTGCCCCCTCCCGCTCAGCAGCGTGCCAGCTGGCTTGACCCCTCCCCGCTCGGTTAGC
GTCTTCCCGCAGGCCGGAGCCTTCGCACCGCAGCCGCTGCTGCCACGCGGAGCTCAGCCGGGCGCGGCCCCCCG
CCCCGCGAGACCGGCACCAACCCCTTCCTCTGAGCCCCGCCCGTCCCATACCGGCCTGCGCCTGCGCCGGACGC
TCCGCGGCCCGCCTCCGGACCCGGGGCTGGGCGGGGCGCCGGTGCTAGTGGAACGCCGAGCCAGTGCGGGCTGG
TATCCCGCGGGCTCTGGAAGCTGGACGCGGACCAGGCCCGGGAGCTAGAACTGAACGCCCCGATAATAAAG
ACTGGAACCCCTCGTTCTCAGCTCTACCAAGTGGACTTTTTGCGGGGTGTGGCGGCCGGGTCTCGACCACAGCGT
GGATCACC GGCTGTTTAGGAAACTGCAGCTGCACAACGTGGGGTGCAAACTGCCCCGCTTCCTTTACAGCTCTT
CTCAACCCCTCACCTCCATCCCCCGTACCCAGGCACCTTCGCTTCAGATGCTGCCAGGCTGTCACTCAATTCCG
TCATTTCAATTCATTTATCACACATGGGCACTGGGGTTGGGCTAACAGCAAGAGACAATAGGCCTTTGTTCTTATT
TATTGGGTACTGCTTACGTGCTAAGCAGATCAGTTTATTTAATGCTTGCAACGACTCTCTGAGGTAGAAAATATT
GTTAATTCCGTTTACAGGATCCCGGCTACATAATCTGTGGGGCTCAATACAAAATAAAAAATGTAGGGGCTCCTTGTTC

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FIGURE 4898

GTGATCCCTGCGCGCGTCTCCTGCTCGGGTCAGTGCGCCGCGCTGCGCTGGGCGCCATGCGCGCTCCCCGGAGCCC
GGGCTCGCGGGCTGGGCGGCAGCAGCCAGAGCGGCCAGAGGCGCCGCGCTGGAGAACGCAGGAGGGTCCCCGA
GTCCTGAGCCTGCGGGCCGGCGCGCGGGCGCTTTACGTACACTGGCCTTACTGCGAGAAGCGCTGCAGTTACTGCA
ACTTCAACAAGTACATCCCTCGCCGCCTGGAGGAGGCTGCCATGCAGAAGTGTCTGGTGACCGAAGCTCAGACGC
TGCTGCGGCTCAGCGGGGTGCAACGGGTGGAGTCTGTGTTCTTTGGTGGGGGGACCCCCAGTCTAGCCAGTCCCC
ACACGGTGGCTGCTGTCTCGGAGGCTGTGGCACAGGCAGCCACCTGCCTGCAGACTTGAAGTCACATTGGAGG
CTAATCCTACTTCAGCTCCGGGCTCCAGACTGGCAGAGTTCGGGGCAGCAGGGGTTAACAGGTTGTCTATAGGCC
TCCAGTCCCTAGATGACACTGAGCTCCGGCTGTTGGGACGGACGCACTCGGCCGCGATGCTCTGCGGACGCTGG
CAGAGGCCCCGGCGCCTCTTTCCCGGGCGCGTGTCTGTAGACTTGATGCTGGGGCTGCCGGCACAGCAGGTGGGGC
CGTGGCTTGGGCAGCTGCAGGAAGTGTGCACCACTGTGATGACCACCTCTCCCTCTACCAGCTGTCCCTGGAGC
GGGGCACCGCACTCTTCGCCCAGGTGCAGCGGGGTGCCCTTCCAGCCCCTGACCCGGAGCTCGCAGCTGAGATGT
ACCAGAGGGGCGGGCTGTCTTCGGGAGGCTGGCTTCCACCAGTATGAGGTCTCCAACCTTTGCCCGGAATGGGG
CGCTCAGTACCCACAATTGGACTTACTGGCAGTGTGGTCACTACCTTGGCGTTGGGCCTGGGGCCCATGGACGAT
TTATGCCCCAGGGGGCTGGAGGCCACACCCGGGAGGCTCGGATCCAGACACTGGAGCCTGACAACCTGGATGAAGG
AGGTGATGCTGTTTGGCCATGGCACCCGGAAGCGTGTCCCCCTGGGCAGGCTGGAGCTGCTGGAGGAAGTTTGG
CCCTGGGGCTACGCACCGATGTGGGGATCACTCACCAGCACTGGCAGCAGTTTGGAGCCCCAGCTGACCCTGTGGG
ATGTGTTTGGAGCGAACAAGGAGGTGCAGGAGCTGCTGGAGCGGGGCTACTGCAGCTGGATCACAGGGGTCTTC
GGTGTTCCTGGGAGGGTCTGGCTGTGCTGGACTCTCTCTTGTCTGACCCTCCTGCCTCAGCTCCAAGAAGCCTGGC
AGCAGAGAACCCCCCTCCCCCTGTGCCAGGAGGATGACAAAAATGTTCTGTGTTCCAGGGTAATGCCAGGTGGGTT
TTGAGAGCTGGGTCGGTACTGCAGACATCTCTTCTCCGTTGTGGGGTGGCGTCTCTGCTCCTTGTGGTTATTGCT
CAGCCCTGGCATCCCCAGGGGAATGGCAGCAGTGAGGTAGATGGGAGGACATTTCTGGTCAGGGAACTGGCATCC
CATTCAGCATCTCAGGACTCACAGGCCAACATGTGTTCCATGGCTGGGAATTGCCTACCACCCACATCAGCTTCT
GTTTACCTTTTTTGGCATCAAATAATGAACAGTGTGTTGGAAATCTTTCTACAGGCAATTACCTCCCCAAGAGAAGC
CTTCCTTATTTTGGAGTAAGGTCCCTAAGATAGCTGGATGAATCAGGAAAACCATGTCCCTCTAGGTATTATTAA
TATTAGCAGGAAGGGATCTACTATAGGAATGAAGTATTTATAAACCCTGAAAGGGATAGAGAAGTGAACATTGG
AGAAAGCCAGTAGCAACTGTGAGAAATCAGCAACTTGCAGGAGGCACAGAAAACCTCCTGCTGATGGTCTCAGCTT
CCAGCAGCACAAAAGCAGATGATGTACTGGAAAATGCTCAGAAGATGCTACAAAACCTCATGCCTACTGTCTGCC
ACTGCTGGAGAAGGAATCATGGTTTCTAGAAGTGCCTCTCATTAGTGGACTTTAAAGCAAATCCTGGCTGGCAGG
AAATTCTGAGGAATATAGCTCTTAGGCTTCCAGCCTCTACCATGCAGGAGAGAACACAGAAGGACTGATGTATGT
TGGTGGATCCATGTATGTGTCCAGCACAGCGGCTGCTGGACTCTGAGAACTGGGAAAGATCAGAGCAAGCCTTG
CCTCTTATCTTCGGGAAACCAGAATATGTTTGGGGTGGTAGGAGCCACACAGACTCTTCTGAGCCCCCTCACTCA
CTTCCTTCCCCCTGTGCCTTTCCTTTGAGAGTGAAGGTGGGTGGAGTTGACCAGAGAAAGGGGAGAGAATTCCGGG
AAAGACCCAAAGTGTTTGTAAATCTTCTTTGTCTTTTACCTACAGAAATGGTCACATGGTTCTATTTAAATAGC
CTAATAAACACATCTGGAGCCTGT

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FIGURE 4899

MALPGARARGWAAAAARAAQRRRRVENAGGSPSPEPAGRRRAALYVHWPYCEKRCSYCNFNKYIPRRLEEAAMQKCL
VTEAQTLRLRLSGVQRVESVFFGGGTPSLASPHTVAAVLEAVAQAHL PADLEV TLEANPTSAPGSRLAEFGAAGV
NRLSIGLQSLDDTELRLLGRT HSACDALRTLAEARRLFPGRVSVDLMLGLPAQQVGPWL GQLQELLHHCDDHLSL
YQLSLERGTALFAQVQRGALPAPDPELAAEMYQRGRAVLREAGFHQYEVS NFARNGALSTHNWTYWQCGQYLGVG
PGAHGRFMPQGAGGHTREARIQTLEPDNWMKEVMLFGHGTRKRVPLGRLELLEEV LALGLRTDVGITHQHWQQFE
PQLTLWDVFGANKEVQELLERGLQLDHRGLRCSWEGLAVLDSLLLTL LPQLQEAQQRTPSVPVPGG

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AGTGTAAAGCAGTGTGCAAAACAAGGTGTTACAGACACATGAAGGCCGTGCAGGCAGATCAGGAGCGGGGAGGCAGC
GGCGGCTGGAAGTAGAACGTGAGGCAGAGAAGAAGCGTGTAGGCTAAGCAGCGAGCTAAGGAAGCTCAGGAGCGGG
AACTGCGGAAGCGGGAGAAGGCGGAAGAGAAGGAGCGCCGGAGAAAGGAGTATGATGCCCTCAAAGCAGCCAAGC
GGGAGCAGGAGAAGAAACCTAA GAAGGAAGCAAATCAGGCCCCGAAATCTAAGTCTGGCTCCCGTCCCGCGAAGC
CACCACCCCGGAAGCACACTCGTTCTCTGGGCTGTGCTGAAGCTGCTGCTGCTGCTGCTGCTATTTGGTGTGGCGG
GAGGGCTGGTTGCTTGTCTGGGTGACAGAGCTGCAGCAGCAGCCCTCTGCACCAGCGTGAACACCATCTATGACA
ATGCGGTCCAGGGTCTACGCCGCCATGAGATCCTCCAGTGGGTCCCTTCAGACCGACTCTCAGCAGTGAAGCTTGT
CCCAGCACCTGCTGCCCTCCAGCCTTGGAGTTTGGATTCCCTATGGAATTGGGTTCTGCTGGACACAACCTCTTTT
TAGCATCAGACCTACCTGCCATCATCAAATGGCTGCAGATTGGTACATGAGACCTCCTCTTTGTAGGACTTCTTC
ATTCCCTTAGTCAGGGTTCCTGAAGGAATGAGGAGAAATGGGAGGTGGCGGGGGGGCGTGGGGGGCAGTTACCTG
CATGCCTAAAGGAGTAGGCTTGGGGGTGGGGAGAGAGAAAACATAGCCTTTTCTAGTTGTTATATAAAGCTGTGT
AAAGGCAAGGCTCGTTTTCTACTAAATGGTCAGCTGTCACTACATTTATACTTTTGATGCCACAAACCTTTTCAT
TCCTCCCTGGGAATCAGGGTAGATCAGGAGGAAC TGGGGGGGACTAGAACACCACGCTCAGTAAATCCAGTCTAA
ACTGGGAGGTAGGGGTATTCTGTTTTTCTTTAGGACCTCAGAGATGTAAGCATTTTAGCAGCCACACAAAATCTC
TGGCTATGAAAGGGACTTCATGACCATCCAGTCCAATATAACACTTGCAGACAGAGAAACTGAGGTCTTCCATGA
CTTGCCCTAGTCTCCCAGCTAGTTTGAGGCAAAACTGGATTCCCACCTCTGGTATTCTTTCTTCCCTTTACATCAT
TTCCCTCCTTTTATAATGTCTGAGAGACCAGAACTCACACCAGAATCGATTATTCCTCAGGTGAAGCATAGACTC
TTTCATGGTAGACAGATTTACGACTCAGAGATAGAAATCTCTTGCTATCATCAGGTCACGGGCAGCTCCTGTGG
AGTCTTGCCCAACTTATGTGGCTTCCATAAAATGGCAACAGTCCAGGCTCCTTGCCTAATTTTAGAGCATTAACT
CCCTAATTGCCAGTAAGCAAGGAGGTGGATCTCTGCAAACCTACACTGTCTATGACAGCTCTAGTTGTACTTGGT
GTGACTAAATACCTCAAAGGCAACCTGCTTCTGCAGGTTTTGAAGTGTGAGCTTCATAAGACACTGAGGTTTAGA
ATTGTTTGATTCTAGACCATAACTGAAGGGCATAAATGGAAACAGGATATGAAGGGAAACAAGTAGCATCATGGA
GCTGAAAAGTGGTGCATACCCAATGGCTAGCACAAACAAGGATCACACTGTCCATTCTCTTGCTGTGCTAAATTA
AGCATTTTCTTGCCCTCCTTTGCTTCTATCTTTTACAAACAGCTGGATAGAGGGATCAGAAATGACTGTGTCATGGT
GCTCATTCAC TGCAAACCTCCAGTTGCAAGCTCCTTGGCTCCCCGGAGGGAGCAAGAAATCTCATAGTTTCAGAGA
CACAGAGGGCCTTTTAGCCCTAATGACCTTTTGGATGGGACTGCAACTCATGACTATCCTGATATTGGAAGAAAG
GACTTTGTAAATCTTCTCCCCCATAGCTCTGCTGCGTAGGTTACATCTTACTCAGAATCACTACACATTCCCTT
AGTCTTCTCCAAGCTCCAGAGCCATTGGTACAAATGCTTTATTGAACTAAATACATAATACACACAATGAGAT
GAAGACAATATAGAAGTCCGCATAGTCATCATAATCCCGTTCCCTTGGCCGGTTGAGGCAGCTCAGTGGCTGAGCC
CAGTCAAGCCAACCCGCAGCTTCACTCAGACTTCAAGATTTGATGCTAATCTTTTGGATTCTACAGTTATTA
AATAAGTGTCTGAGTGGACAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 4901

MKAVQADQERERQRRLEVEREAEKKREKQRAKEAQERELRKREKAEKERRRKEYDALKAARKREKPKKEAN
QAPKSKSGSRPRKPPPRKHTRSWAVLKLLLLLLLFVAGGLVACRVTELQQQLCTSVNTIYDNAVQGLRRHEIL
QWVLQTDSSQ

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FIGURE 4902A

AGGTGAACAGGTCTCTACGCCAGCTCCGCGCCCTCACGCGCTCTCGCCGGGACCCCGCTTCCGCTGGCAGCCAT
GGGCCCCGGCCCCAGCCGCGCGCCCCGCGCCCCACGCCTGATGCTCTGTGCGCTCGCCTTGATGGTGGCGGCCGG
CGGCTGCGTCTCTCCGCTTCAACCTGGATACCCGATTCTTGGTAGTGAAGGAGGCCGGGAACCCGGGCAGCCT
CTTCGGCTACTCGGTGCGCCTCCATCGGCAGACAGAGCGGCAGCAGCGCTACCTGCTCTGGCTGGTGGCCCCCG
GGAGCTCGCTGTGCCGATGGCTACACCAACCGGACTGGTGTGTGTACCTGTGCCACTACTGCCACAAGGA
TGACTGTGAGCGGATGAACATCACAGTGAAAAATGACCCTGGCCATCACATTATTGAGGACATGTGGCTTGGAGT
GACTGTGGCCAGCCAGGGCCCTGCAGGCAGAGTTCTGGTCTGTGCCACCGCTACACCCAGGTGCTGTGGTCAGG
GTCAGAAGACCAGCGGCGCATGGTGGGCAAGTGCTACGTGCGAGGCAATGACCTAGAGCTGGACTCCAGTGATGA
CTGGCAGACCTACCACAACGAGATGTGCAATAGCAACACAGACTACCTGGAGACGGGCATGTGCCAGCTGGGCAC
CAGCGGTGGCTTACCCAGAACACTGTGTACTTCGGCGCCCCCGGTGCCTACAAC TGAAAGGAAACAGCTACAT
GATTACGCGCAAGGAGTGGGACTTATCTGAGTATAGTTACAAGGACCCAGAGGACCAAGGAAACCTCTATATTGG
GTACACGATGCAGGTAGGCAGCTTCATCTGCACCCCAAAAACATCACCAATTGTGACAGGTGCCCCACGGCACCG
ACATATGGGCGCGGTGTTCTTGTGAGCCAGGAGGCAGGCGGAGACCTGCGGAGGAGGCAGGTGCTGGAGGGCTC
GCAGGTGGGCGCCTATTTTGGCAGCGCCATTGCCCTGGCAGACCTGAACAATGATGGGTGGCAGGACCTCCTGGT
GGGCGCCCCCTACTACTTCGAGAGGAAAGAGGAAGTAGGGGGTGCCATCTATGTCTTCATGAACCAGGCGGGAAC
CTCCTTCCCTGCTCACCCCTCACTCCTTCTTCATGGCCCCAGTGGCTCTGCCTTTGGTTTATCTGTGGCCAGCAT
TGGTGACATCAACCAGGATGGATTTTCAGGATATTGCTGTGGGAGCTCCGTTTGAAGGCTTGGGCAAAGTGTACAT
CTATCACAGTAGCTCTAAGGGGCTCCTTAGACAGCCCCAGCAGGTAATCCATGGAGAGAAGCTGGGACTGCCTGG
GTTGGCCACCTTCGGCTATTCCCTCAGTGGGCAGATGGATGTGGATGAGAACTTCTACCCAGACCTTCTAGTGGG
AAGCCTGTGACACCACATTGTGCTGCTGCAGGGCCCGGCCCGTCATCAACATCGTCCACAAGACCTTGGTGGCCA
GGCCAGCTGTGCTGGACCTTGCACTTTGCACGGCCACCTCTTGTGTGCAAGTGGAGCTGTGCTTTGCTTACAACC
AGAGTGCCGGGAACCCCAACTACAGGCGAAACATCACCTTGGCCTACACTCTGGAGGCTGACAGGGACCGCCGGC
CGCCCCGGCTCCGCTTTGCCGGCAGTGAGTCCGCTGTCTTCCACGGCTTCTTCTCCATGCCCCGAGATGCGCTGCC
AGAAGCTGGAGCTGCTCCTGATGGACAACCTCCGTGACAACTCCGCCCCATCATCATCTCCATGAACACTCTT
TACCTTTGCCGATGCCCCGATGCCCCCGGCTGGGGCTGCGGTCCCTGGACGCCTACCCGATCCTCAACCAGGCAC
AGGCTCTGGAGAACCACACTGAGGTCCAGTTCCAGAAGGAGTGCGGGCCTGACAACAAGTGTGAGAGCAACTTGC
AGATGCGGGCAGCCTTCGTGTGAGAGCAGCAGAGAAGCTGAGCAGGCTCCAGTACAGCAGAGACGTCCGGAAT
TGCTCCTGAGCATCAACGTGACGAACACCCGGACCTCGGAGCGCTCCGGGGAGGACGCCACGAGGCGCTGTCA
CCCTGGTGGTGCTCCCGCCCTGCTGCTGTCTCAGTGCGCCCCCCCCGGGGCTGCCAAGCTAATGAGACCATCT
TTTGCGAGCTGGGGAACCCCTTCAAACGGAACAGAGGATGGAGCTGCTCATCGCCTTTGAGGTATCGGGGTGA
CCCTGCACACAAGGGACCTTCAGGTGCAGCTGCAGCTCTCCACGTGAGTACACAGGACAACCTGTGGCCCATGA
TCCTCACTCTGCTGGTGGACTATACACTCCAGACCTCGCTTAGCATGGTAAATCACCGGCTACAAAGCTTCTTTG
GGGGGACAGTGATGGGTGAGTCTGGCATGAAACTGTGGAGGATGTAGGAAGCCCCCTCAAGTATGAATTCCAGG
TGGGCCCAATGGGGGAGGGGCTGGTGGGCCTGGGGACCTGGTCTAGGTCTGGAGTGGCCCTACGAAGTCAGCA
ATGGCAAGTGGCTGCTGTATCCACGGAGATCACCGTCCATGGCAATGGGTCTGGCCCTGCCGACCACCTGGAG
ACCTTATCAACCCTCTCAACCTCACTCTTTCTGACCCTGGGGACAGGCCATCATCCCCACAGCGCAGGCGGGCAGC
AGCTGGATCCAGGGGGAGGCCAGGGCCCCCACCTGTCACTCTGGCTGCTGCCAAAAAAGCCAAGTCTGAGACTG
TGCTGACCTGTGCCACAGGGCGTGCCCACTGTGTGTGGCTAGAGTGCCCATCCCTGATGCCCCGTTGTACCA
ACGTGACTGTGAAGGCACGAGTGTGGAACAGCACCTTCATCGAGGATTACAGAGACTTTGACCGAGTCCGGGTAA
ATGGCTGGGCTACCCTATTCTCCGAACCAGCATCCCCACCATCAACATGGAGAACAAGACCACGTGGTCTCTG
TGGACATTGACTCGGAGCTGGTGGAGGAGCTGCCGGCCGAAATCGAGCTGTGGCTGGTGGTGGTGGCGTGGGTG
CAGGGCTGTGCTGTGGGGCTGATCATCTCTCTGCTGTGGAAGTGTGACTTCTTTAAGCGGACCCGCTATTATC
AGATCATGCCCCAAGTACCACGAGTGCGGATCCGGGAGGAGGAGCGCTACCCACCTCCAGGGAGCACCCCTGCCCA
CCAAGAAGCATGGGTGACCAGCTGGCAGACTCGGGACCAATACTACTGACGTCTCTCCTGATCCACCCCCCTCC
TCCCCAGTGTCCCTTTCTTCTTATTTATCATAAGTTATGCTCTGACAGTCCACAGGGGGCCACCACCTTTGGC
TGGTAGCAGCAGGCTCAGGCACATACCTCGTCAAGAGCATGCACATGCTGTCTGGCCCTGGGGATCTTCCCAC
AGGAGGGCCAGCGCTGTGGACCTTACAACGCCGAGTGCACTGCATTCTGTGCCCTAGATGCACGTGGGGCCAC
TGCTCGTGGACTGTGCTGGTGCATCACGGATGGTGCATGGGCTCGCCGTGTCTCAGCCTCTGCCAGCGCCAAAAC

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FIGURE 4902B

AAGCCAAAGAGCCTCCCACCAGAGCCGGGAGGAAAAGGCCCTGCAATGTGGTGACACCTCCCCCTTTCACACTG
GATCCATCTTGAGCCACAGTCACTGGATTGACTTTGCTGTCAAACTACTGACAGGGAGCAGCCCCGGGCCGCT
GGCTGGTGGGCCCCCAATGACACCCATGCCAGAGAGGTGGGGATCCTGCCTAAGGTTGTCTACGGGGGCACTTGG
AGGACCTGGCGTGCTCAGACCCAACAGCAAAGGAACTAGAAAAGAGGACCCAGAACGGCTTGCTTTCTGCATCT
CTGTGAAGCCTCTCTCCTTGGCCACAGACTGAACTCGCAGGGAATGCAGCAGGAAGGAACAAAGACAGGCAAACG
GCAACGTAGCCTGGGCTCACTGTGCTGGGGCACGGCGGGATCCTCCACAGAGAGGAGGGGACCAATTCTGGACAG
ACAGATGTTGGGAGGATACAGAGGAGATGCCACTTCTCACTCACCCTACCAGCCAGCCTCAGAAGGCCCCAGAG
AGACCTTGCAAGACCACGGAGGGAGCGACACTTGAATGTAGAATAGGCAGGGGGCCCTGCCCCACCCATCCAGC
CAGACCCACGCTGACCATGCGTCAGGGGCCTAGAGGTGGAGTTCTTAGCTATCCTTGGCTTTTCAGAGCCAGCCT
GGCTCTGCCCCCTCCCCATGGGCTGTGTCCTAAGGCCCATTTGAGAACTGAGGCTAGTTCCAGAAAACCTCTC
CTGACCCCTGCCTGTTGGCAGGCCCACTCCCCAGCCCCAGCCCCTTCCATGGTACTGTAGCAGGGGAATTCCCTC
CCCCTCCTTGTGCCTTCTTTGTATATAGGCTTCTCACGGCGACCAATAAACAGCTCCCAGTTTGT

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FIGURE 4903

GACAATATCAGGTGAGCTGTGGAGGTGGGGTCTTGGAAAGCTGGATGACAGCAGCTGGCAAGGGGATAAGAGAGC
AGTGAGCCCCCTCCCTCAAGGAGGTCTGGCTTTATCCATAGACAGGGCCCTCTGAGGTGGGGCTGAGGTACAAAGG
GGGATTGAGCAGCCCAGGAGAAGAGAGATGGGGGTTCCCTTCTTCTCTCTCAGATGCATGGTGGACTTAGGA
CCTTGCTGGGGCTGGGGGTCTCACTGCAGAGATGAAGCTGCTTCTGGCCCTAGCAGGGCTCCTGGCCATTCTGGCC
ACGCCCCAGCCCTCTGAAGGTGCTGCTCCAGCTGTCTGGGGGAGGTGGACACCTCGTTGGTGTGAGCTCCATG
GAGGAGGCCAAGCAGCTGGTGGACAAGGCCTACAAGGAGCGGCGGGAAAGCATCAAGCAGCGGCTTCGCAGCGGC
TCAGCCAGCCCCATGGAACCTCTATCTTCAAGCAGCCGGTGGCAGCCACCAGGACGGCGGTGAGGGCCGCT
GACTACCTGCACGTGGCTCTAGACCTGCTGGAGAGGAAGCTGCGGTCCCTGTGGCGAAGGCCATTCAATGTCACT
GATGTGCTGACGCCCCGCCAGCTGAATGTGTGTCCAAGTCAAGCGGTGCGCTACCAGGACGTGGGGGTGACT
TGCCCCGAGCAGGACAAATACCGCACCATCACCGGGATGTGCAACAACAGACGCAGCCCCACGCTGGGGGCTCC
AACCGTGCTTTGTGCGCTGGCTGCCGGCGGAGTATGAGGACGGCTTCTCTTCCCTACGGCTGGACGCCCCGG
GTCAAGCGCAACGGCTTCCCGGTGGCTCTGGCTCGCGCGGTCTCCAACGAGATCGTGCGCTTCCCCACTGATCAG
CTGACTCCGGACCAGGAGCGCTCACTCATGTTTATGCAATGGGGCCAGCTGTTGGACCACGACCTCGACTTCACC
CCTGAGCCGGCCGCCCGGGCTCCTTCGTCACTGGCGTCAACTGCGAGACCAGCTGCGTTGAGCAGCCGCCCTGC
TTCCCGCTCAAGATCCCGCCCAATGACCCCCGCATCAAGAACCAAGCCGACTGCATCCCGTCTTCCGCTCCTGC
CCGGCTTGCCCCGGGAGCAACATCACCATCCGCAACCAGATCAACGCGCTCACTTCCTTCGTGGACGCCAGCATG
GTGTACGGCAGCGAGGAGCCCCCTGGCCAGGAACCTGCGCAACATGTCCAACCAGCTGGGGCTGTGCGCGTCAAC
CAGCGCTTCCAAGACAACGGCCGGGCCCTGCTGCCCTTTGACAACCTGCACGATGACCCCTGTCTCCTACCAAC
CGCTCAGCGCGCATCCCCTGCTTCTTGGCAGGGGACACCCGTTCCAGTGAGATGCCCGAGCTCACCTCCATGCAC
ACCCTCTTACTTCCGGGAGCACAACCGGCTGGCCACAGAGCTCAAGAGCCTGAACCCTAGGTGGGATGGGGAGAGG
CTCTACCAGGAAGCCCGGAAGATCGTGGGGGCCATGGTCCAGATCATCACTTACCGGGACTACCTGCCCTGGTG
CTGGGGCCAACGGCCATGAGGAAGTACCTGCCACGTACCGTTCCTACAATGACTCAGTGGACCCACGCATCGCC
AACGTCTTACCAATGCCTTCCGCTACGGCCACACCCTCATCCAACCCTTCATGTTCCGCTGGACAATCGGTAC
CAGCCCATGGAACCAACCCCCGTGTCCCCCTCAGCAGGGTCTTTTTTGCCTCCTGGAGGGTCGTGCTGGAAGGT
GGCATTGACCCCATCCTCCGGGGCTCATGGCCACCCCTGCCAAGCTGAATCGTCAGAACCAAAATGCAGTGGAT
GAGATCCGGGAGCGATTGTTTGAGCAGGTCTATGAGGATTGGGCTGGACCTGCCTGCTCTGAACATGCAGCGCAGC
AGGGACCACGGCTCCCAGGATACAATGCCTGGAGGCGCTTCTGTGGCTCCCGCAGCCTGAACTGTGGGCCAG
CTGGGCACGGTGTGAGGAACCTGAAATTGGCGAGGAACTGATGGAGCAGTATGGCAGCCCAACAACATCGAC
ATCTGGATGGGCGCGTGTCCGAGCTCTGAAGCGCAAAGGCCGCGTGGGCCCACTCCTCGCTGCATCATCGGT
ACCCAGTTCAGGAAGCTCCGGGATGGTGATCGGTTTTGGTGGGAGAACGAGGGTGTGTTGAGCATGCAGCAGCGA
CAGGCCCTGGCCCAGATCTCATTGCCCGGATCATCTCGACAACACAGGCATCACACCCTGTCTAAGAACAAC
ATCTTCATGTCCAACATCATATCCCCGGGACTTTGTCAACTGCAGTACACTTCTGCATTGAACCTGGCTTCCTGG
AGGGAAGCCTCCTAGAGGCCAGGTAAGGGGGTGCAGCAGTGAAGGGTATATCTGGGCTGGCCAGTTGGAACCACG
GAGATCTCCTTGCCCTAGATGAGCCAGCCCTGTTCTGGGTGCAGCTGAGAAAATGAGTGACTAGACGTTTCAATTT
GTGTGCTCATGTATGTGCGAAGTATATAAATTGGCTTTTTCATGCGTGTGTGTTGTCTGAACATGGGGAGTGTTC
ATGGGTTATGTGTATGTGCCATTTATGTGAGTGTGTGTTTGTGCTGATGAGAATACTGAGTATGTGGAAGGCAGC
AGAGCGGACTGGTGAGGAGCACAGCTCAGGAACCTAGACTGCCTGGGTTCCAATCCTGGCTCTGTGGCTTGCTAGC
TATGTGACCTTGAGCAAATTACCCTCCTTAAACAAGAGTTTTCTTCTTGTAAATTACATCTGTCAIGGTTTCTT
GGAGGGCCCCACTTGTATCCTCTGGTTCTTCAATTTATTGAGCACCTACTACATGCAAGGCACTGTACTAGGCGTGA
GAAGCATATAGAGGCAAGAAAGAGATACCAAGATGCCATCTGTGTCCTGGTTAGCAGAGCTGGACCAGTGGTGCC
TTGGAGGGATAAGCCAGCTGCAGCTGGGCTGTGTGGTTGACTTATGGGCCAGCCAGCCAGGCTCAGGCCATGGC
TCCCCTTTTCTTCTCACCCTGATTTCTTGCTTATTCACTGAAGTTCTCCTGAAGAGGAAGTGGGCTGTGGC
CTTCTGTACCATTTATTTGCTCCCAATGTTTATGATAATAAAGGCACCGCTGATGGGGACCTCC

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FIGURE 4904

MGVPPFFSSLRCMVDLGPCWAGGLTAEMKLLLALAGLLAILATPQFSEGAAPAVLGEVDTSLVLSSMEEAKQLVDK
AYKERRESIKQRLRSGSASPMELLSYFKQPVAATRTAVRAADYLHVALDLLERKLRSLWRRPFNVTDVLTPAQLN
VLSKSSGCAYQDVGVTCPEDQKYRTITGMCNNRRSPTLGASNRAFVRWLPAEYEDGFSLPYGWTPGVKRNQFVPA
LARAVSNEIVRFPTDQLTPDQERSLMFMQWGQLLDHDLDFTEPAARASFVTGVNCETSCVQQPFCFPLKIPPND
PRIKNQADCIPFFRSCPACPGSNITIRNQINALTSFVDASMVYGSEELARNLRNMSNQLGLLAVNQRFQDNRA
LLPFDNLHDDPCLLTNRSARIPCFLAGDTRSEMPELTSMHTLLLREHNRLATELKSINPRWDGERLYQEARKIV
GAMVQIITYRDYLPVLGPTAMRKYLPTYRSYNDSDPRIANVFTNAFRYGHITLIQPFMFRLDNRYQPMENPRV
PLSRVFFASWRVVLEGGIDPILRGLMATPAKLNQNIQAVDEIRERLFEQVMRIGLDLPALNMQRSDHGLPGYN
AWRRFCGLPQPETVGQLGTVLRNLKLARKLMEQYGTNNIDIWMGGVSEPLKRKGRVGPILLACIIGTQFRKLKRDG
DRFWWENEGVFMSMQQRQALAQISLPRIICDNTGITTVSKNNIFMSNSYPRDFVNCSTLPALNLASWREAS

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FIGURE 4905

TTCTTCCGCTCCTGCCCGGCTTGCCCCGGGAGCAACATCACCATCCGCAACCAGATCAACGCGCTCACTTCCTTC
GTGGACGCCAGCATGGTGTACGGCAGCGAGGAGCCCCCTGGCCAGGAACCTGCGCAACATGTCCAACCAGCTGGGG
CTGCTGGCCGTCAACCAGCGCTTCCAAGACAACGGCCGGGCCCTGCTGCCCTTTGACAACCTGCACGATGACCCC
TGTCCTCTACCAACCGCTCAGCGCGCATCCCCTGCTTCCTGGCAGGTCAGCTTTGGGGTGGGGACCAGAGGTGG
CATAGGAGATGTTCCCTGTTGGAGCCACAGGGACACCCGTTCCAGTGAGATGCCCCAGCTCACCTCCATGCACAC
CCTCTTACTTCGGGAGCACAACCGGCTGGCCACAGAGCTCAAGAGCCTGAACCCTAGGTGGGATGGGGAGAGGCT
CTACCAGGAAGCCCCGGAAGATCGTGGGGGCCATGGTCCAGGTAGGCCGCTCTTGAACACCGGGCACACGGGATCCA
GATGTGTCCCTGCAACATCCTAGCTGTGTGACCTTGGGCAAGTTCCTAACGCTCCTGAGCCTTGCTTCTTCATC
CATGAGGCTGTAAGGATTATAATACATATATGAAACACCTTTCAGATAGTAAGTGCTTGACAAAGCCTCCTTCC
CTTCCCTCTCCTTCTTCGCAGGTTTGCTCCCTGCAGTCTTCTTCTCCTGTGGGTCTGTTATTGGTGTGGGAGGGT
TGAATGTTTGGTTTAGCGCCCAAGTAGCTGTTCAAGTAAATTCTTCTTCCCTCCATCTCACTGTCACTCTTAGCTC
CTTTACCCACTCACCTCTTCTTTTTAAATTAATAAATTAATAGGGCTGGGCGCGGTGGCTCATGCCTGTAATCC
CAGCACTTTGGGAGGCGGAGGCGGGTGGATCACGAGGTCAGGAGATCAAGACCATGCTGGCTAACACGGTGAAAC
CCCATCTCTACTAAAAATACAAAAATTAGCCGGGCGTGGTGGCGGGCACCTGTAGTCCCAGCTACTTGGGAGGCT
GAGGCAGGAGAATGGCGTGAACCTGGCTGGAGTGCAGTGGTGGATCTTGGCTCACTGCAACCTCCACCTTTCAG
GCTCAAGCCATTCTCCC

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FIGURE 4906

AGCCAGTTTGAAGTAGATCTGTACCAAAATGAAACAGCCTGTCAGAGTCCTTTGGATTATCAGTACCGTCAGGAG
ATCCTGAAGCTGGAGAATTTCGGGTGGCAAGAAAAACCGACGAATCTTTACCTACACTGACTCTGATAGATACACC
AATTTGGAGGAGCACTGTCAGAGAAATGACCACTGCAGCCAGCGAGGTGCCTTCATTCTTGGTCGAGCGAATGGCA
AATGTCAGGCGTCGCCGGCAGGACAGGCGAGGGATGGAGGGCGGCATCCTCAAGTCACGCATCGTCACCTGGGAG
CCCTCAGAAGAGTTTGTGAGGAACAACCACGTCATTAACACCCCTCTTCAGACAATGCACATCATGGCAGACCTG
GGGCCCTATAAAAAGCTTGGCTATAAGAAGTATGAACATGTCCTGTGTACTCTGAAGGTGGATAGCAATGGTGTG
ATCACAGTAAAGCCTGACTTCACGGGCCTCAAAGGACCTACAGGATTGAGACGGAGGGGGAGAAGCAGGAGCTG
TGGAAATATACGATCGACAATGTTTCCCCCACGCACAGCCGAGGAGGAGGAGCGGGAACGGCGAGTGTTCAAG
GATCTTTATGGCCGGCACAAGGAGTATCTCAGCAGCCTCGTAGGCACCGACTTTGAGATGACTGTCCCAGGTGCC
CTCCGGCTCTTTGTAATGGAGAGGTCTGTTTCAGCCCAAGGCTATGAGTATGACAATCTCTACGTCCACTTCTTT
GTAGAATTGCCAATGCTCAGTGGTCAAGCCAGCATTCCAGCAGCTCTCAGGAGTAACACAGACCTGCACCACC
AAGTCCCTGGCAATGGACAAGGTGGCTCACTTCTCTACCCATTACGTTTGAAGCCTTCTTCTCCATGAGGAT
GAATCTTCTGATGCACTCCCGGAGTGGCCTGTGCTCTACTGTGAGGTCTCTCGCTGGACTTCTGGCAGAGGTAC
CGTGTGGAAGGCTATGGGGCTGTGGTGTGCTGCCACTCCAGGCTCACACACCCTGACAGTCTCCACGTGGAGA
CCTGTGGAGCTTGGCACGGTGGCTGAGCTGAGGAGGTTTTTTCATTGGCGGTTCTCTGGAAGTGGAGGACCTCTCC
TATGTACGGATACCAGGATCCTTCAAGGGGGAACGCCTGAGCCGCTTTGGACTCCGCACAGAGACCACAGGCACT
GTCACCTTCCGCTTGCACTGTCTGCAGCAGTCCAGGGCCTTCATGGAATCGAGCTCCCTTCAGAAAAGGATGCGG
AGTGTGTTGGACCGTCTGGAAGGGTTTCAGCCAGCAGAGTTCCATTACAATGTGCTAGAGGCCTTCCGTCGAGCC
CGGCGCCGCATGCAGGAGGCCCGGGAAGCCTCCCGCAGGACCTAGTGAGCCCTCTGGAACCCTGGTCTCCTAG

CTCACAGCAGCCCTGGCCACAGTGCAAGAGGACAAGATGGGGGATATCTGAGGCCAGTGCTCTCCTGCCTCTTC
GTCTTTCTGATTAGAGACCACGTTGGTCTGCTGAGAACCAGAAAAGCTGGGAAATTCCCGGCTGGCCCTCTGCC
TAGCCTTCTGCAGGGTCTTCTCCCTACCTGTGGAAATAAAGCCAGAGACCCTGTGGCCCCCTTTATATTTC
AGCCACTGTCAGATGGGCATCACAGCAAGGCAGGCTTTTTGATCTGAAGCTGTTTGGGGTGACCCCATAGTGAGT
CTGGCCTTGACTCACTTTTCTGGCTTGTACTCACAGTAGCAGGGGATCTGCTGTTCTCCACCCTTTAAAAATGGA
GCCTTTCATCTTCCAAGACCAAAGAAGGAAGGAAGGTGGACGGTGAGAGGGTCTTAAATCCCCAGCCTGTGAGTC
TCAGCCTCTTCCAGGGAAGCCTCATTCTACTGCTTGGGGCTTGTGAGGTTGAGATATGAGTTATTTCTGAGTA
AGTGAAGGCTGAAGGCAGTGCTGAGTCCTTTCTGCTAGCTGGGTGGTATCTTTTACTGTGTTTTTTTGTGTTT
GTTTTTTGTGTTTTTGTACATAAACCCCTTTATTTTGGAAAAA

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FIGURE 4907

MTTAAASEVPSFLVERMANVRRRRQDRRGMEGGILKSRIVTWEPSEEFVRNNHVINTPLQTMHIMADLGPHYKKLGY
KKYEHVLCTLKVDSNGVITVKPDFTGLKGPYRIETEGEKQELWKYTIIDNVSPHAQPEEEERERRVFKDLYGRHKE
YLSSLVGTD FEMTVPGALRLFVNGEVVSAQGYEYDNLVHFFVELPTAHWSSPAFQQLSGVTQTCTTKSLAMDKV
AHFSYPFTFEAFFLHEDESSDALPEWPVLYCEVLSLDFWQRYRVEGYGAVVLPATPGSHTLTVSTWRPVELGTVA
ELRRFFIGGSLELEDLSYVRIPGSFKGERLSRFGLRTETTGTVTFRLHCLQQSRAFMESSSLQKRMRSVLDRLG
FSQQSSIHNVLFAFRARRRMQEARESLPQDLVSPSGTLVS

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FIGURE 4908

GGCCTGTTCTCGAGTCCGCGCTTTTCGTACCGCCATGTCGGGAGGTGGTGTGATTTCGTGGCCCCGCAGGGAACA
ACGATTGCCGCATCTACGTGGGTAACTTACCTCCAGACATCCGAACCAAGGACATTGAGGACGTGTTCTACAAAT
ACGGCGCTATCCGCGACATCGACCTCAAGAATCGCCGCGGGGGACCGCCCTTCGCCTTCGTTGAGTTCGAGGACC
CGCGAGACGCGGAAGACGCGGTGTATGGTCGCGACGGCTATGATTACGATGGGTACCGTCTGCGGGTGGAGTTTC
CTCGAAGCGGCCGTGGAACAGGCCGAGGCGGCGGGGGTGGAGGTGGCGGAGCTCCCCGAGGTCGCTATGGCC
CCCCATCCAGGCGGTCTGAAAACAGAGTGGTTGTCTCTGGACTGCCTCCAAGTGAAGTTGGCAGGATTTAAAGG
ATCACATGCGTGAAGCAGGTGATGTATGTTATGCTGATGTTTACCGAGATGGCACTGGTGTCTGAGGTTTGTAC
GGAAAGAAGATATGACCTATGCAGTTCGAAAACCTGGATAACACTAAGTTTAGATCTCATGAGGGAGAACTGCCT
ACATCCGGTTAAAGTTGATGGGCCCAGAAGTCCAAGTTATGGAAGATCTCGATCTCGAAGCCGTAGTCGTAGCA
GAAGCCGTAGCAGAAGCAACAGCAGGAGTCGAGTTACTCCCCAAGGAGAAGCAGAGGATCACCACGCTATTCTC
CCCGTCATAGCAGATCTCGCTCTCGTACATAAGATGATTGGTGACACTTTTTGTAGAAGCCATGTTGTATACAGT
TTCCCTTATTCAGTACAATCTTTTCATTTTTTAATTCAAACCTGTTTTGTTCAGAATGGGCTAAAGTGTGAATT
GCATTCTTGTAATATCCCCCTGCTCCTAACATCTACATTCCCTTCGTGCTTTTGATAAATTGTATTTAAGTGAT
GTCATAGACAGGATTGTTTAAATTTAGTTAACTCCATACTCTTCAGACTGTGATATTGTGTAAATGCTATCTGC
CCTGGTTTTGTGTGAAGTGGGATGTTGGGGGTGTTTGTGGTTATCTTACCTGGGGAAGTTCCTATGTTTATCTTGC
TTTTCATGTGCTTTTCTGTAGACATATCTGAAGAGATGGATTAAGAATGCTTTGGATTAAGGATTGTGGAGCACA
TTCAATCATTTTAGGATTGTCAAAAGGAGGATTGAGGAGGATCAGATCAATAATGGAGGCAATGGTATGACTCC
AAGTGCTATTGTACAGATGAAATTGGCAGTATTGACCTTATACTAAAAGGCAGGGGTAAAAATGATTATATAC
ATTTTCCTTAAACACTTGCAACATTTTATTCAGTTGCTTTAGCTACAATTGCTTTGCTTTTTAAACCTTGGC
AATTGTGGCAAAATTATATTGCCATTTTGTAGCAACTTATTTTGCTCCCTTCCCCCATTTTTGTTTTAATAGG
GACTAATGTGGGAAGAACTGGCTAATTTGTACAGTGCTTAGTTACAACCTGTTAATGTGTGACCTGCTGTTGGTG
TACATGTGGGTACAGGGTGTTTTTAAATCCAACAAGATAGAGTATAATATCAATACTGCTAAATCTGCATGTCCT
CTGTGTGACTGATAGAGCGTTGCTATTTTCAATTTTTTAAAGACAAAATGAAAGCAAAATATAGAGTTCCAATGTAT
TGGTGTAGATAATCTAGTTGGGAATACTTTTTAAGTCTCACCTTCCCTTTTAACTAATATTATAATTGGTTTCAT
ATGTTTAAAGACTTTAATTTACAAATTAAATTGCAAATGGGAGCATTAGATTTAGTTTTAGACTTAGGTGGGTA
GCAATGCCAGTAACTTAAATTACGTAACCTTCTTGCAACCACGAAACCTGTAATACGCTGTACAGTAACAAGTGT
TGGCATTATCAGTTGAACTGTAAATACAAATGCTTCTTCCAATTAGTCTCTATGATGATTAAGTTTCTAAATTT
TATCTGAACACCATTCAGAACTTGTTTTGGGGAATTTGATAGTTATTGATGTGCATCTGTTAACTGATGACAG
ACATAACTCATCATTTCCCCAGAAACCTTTTTTGATTACAGTATCTAACATTTTGCTCCTCTTTTTTGGTTTTGC
TGGTTATAAAGGTTTGGATTGGAGAGGGCTCACTGGATCCCAATCCTTGGAGCTGGATCATTGGATTCAAATCAT
AATGTGGATAGGATAGGGAGGATGAATTACCAGGATTCATGGAGCGGGATCAGATTACCAGGAACATAGGAGTGG
ATTCTGCCCCAACCACCGCATTCGTGTGGATTTTTTATTCAACTTAATTGGCTATTCCAAAGATTTTTTTT
TTCTATTTTTTGACGATTGGAGCCCTTAAGATGCACGATGGAATTGTGTTTTGCGTTTTTGGTAAAGGAGCAA
AGCGAGGACCTGGAGATAAACGCTGGAGCAATCTCCTTGAAGGATTCAGCACGAGTAGATGGTAAACATTTAAA
GGGGAAGGGGGGTTTTGTTTTAAATAGTAAATCAGTAAGTCACTTCTAAATTTAAAGAAAACAAAATTGGAGTT
GAAGAATAAGTAGGTTTCCAATTGGCTATTGCCGTTTTCTTTGAAAAATAAACATTTTTTAAAAAACAAAAAA
AAAAAAA

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FIGURE 4909

MSGGGVIRGPAGNNDCRIYVGNLPPDIRTKDIEDVFYKYGAIRDIDLKNRRGGPPFAFVEFEDPRDAEDAVYGRD
GYDYDGYRLRVEFPRSGRGTGRGGGGGGGGGAPRGRYGPPSRSEN RVVVSGLPPSGSWQDLKDHMREAGDVCYA
DVYRDGTGVVEFVRKEDMTYAVRKLDNTKFRSHEGETAYIRVKVDGPRSPSYGRSRSRSRSRSRSRSRSRNSRSRS
YSPRRSRGSPRYSPRHSRSRSRT

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FIGURE 4910

ATGGGTAAGATCCGGAAGGCCCAAGGAGAAGGGCTGCCCCGCCCACTGCCCCCTGCTGGTCCAGCCCAACCTCCCC
TTTGGGTACCCAGTCCACGGAGTGGAGGTGATGCCCCCTGCACACGGTTCCCATCCCAGGCCTCCAGTTTGAAGGA
CCCGATGCCCCCGTCTATGAGGTCACCCTGACAGCTTCTCTGGGGACACTGAACACCCTTGCTGATGTCCCAGAC
AGTGTGGTGCAGGGCAGAGGCCAGAAGCAGCTGATCATTCTACCAGTGACCGGAAGCTGTTGAAGTTTATTCTT
CAGCACGTGACATACACCAGCACGGGGTACCAGCACCAGAAGTACTATCCCCACATTGCCATTGACCCCATAGAG
CCACTCGAGGAGAGAACAAATCATGCTGTGCGCTTTGCACCTGTGAGTCTGGAGTCCAGGTCTCAGTGGCCAAG
TTTCCAGTGACCATCCGCCATCCTGTCATACCCAAGCTATACGACCTGGACCAGTGTTCTTTTCAAGTGTAGTCTT
AATCAGACTATTCAACTCCTCATCACCACAGACACTGGTAGTATCTGGCACCAGGTGGGGTGGGAAGACAACCCGT
GAGTATTACACCTTCATGTGGGTACTTTGCCCATTGACCTAAACAACAAATCAGCTAAACAGCAGGAAGTCCAA
TTCAAAGCTTACTACCTGCCCAAGGATGATGAGTATTACAGTTCTGCTATGTGGATGAGGATGGTGTGGTCCGG
GGAGCAAGTATTCCTTTCCAATTCCGTCCAGAAAATGAGGAAGACATCCTGGTTGTTACCACTCAGGGAGAGGTG
GAAGAGATTGAGCAGCACACAAGGAGCTTTGCAAAGAAAACCAGGAGCTGAAGGACAGCTGTATCAGCCTCCAG
AAGCAGAACTCAGACATGCAGGCTGAGCTCCAAAAGAAGCAGTATCTTTGA

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[illegible]

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FIGURE 4912

MEETIKDPPTS AVLLDHCHFSQVIFNSVEKFYIPGGDVTCHYTFTQHFIPRRKDWIGIFRVGWKTTREYYTFMWV
TLPIDLNNKSAKQQEVQFKAYYLPKDDEYYQFCYVDEEDGVVRGASIPFQFRPENEEDILVVTTQGEVEEIEQHNK
ELCKENQELKDSCISLQKQNSDMQAELOKKQEELETLSINKKLELVKEQKDYWETELLQLKEQNQKMSSENEK
MGIRVDQLQAQLSTQEKEMEKLQGDQDKTEQLEQLKKENDHLFLSLTEQRKDQKKLEQTVEQMKQNETTAMKKQ
QELMDENFDLSKRLSENEIICNALQRQKERLEGENDLLKRENSRLLSYMGLDFNSLPYQVPTSDEGGARQNPGLA
YGNPYSGIQESSPSPLSIKKCPICKADDICDHTLEQQQMQLCFNCPICDKIFPATEKQIFEDHVFCHSL

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FIGURE 4913

AAAAAATGCTTCTGTGCTCTAAGATATATATGTGTGTGTGTGTGCTACATATATATTTTTAAGAAAGGACCATC
TCITTAGGATATATTTTTAAATTCTTTGAAACACATAACCAAATGGTTTGATTCACTGACTGACTTTGAAGCTG
CATCTGCCAGTTACACCCAAATGGCTTTAATCCCTCTCGGGTCTGGTTGCCTTTTGCAGTTTGGGTTGTGGAC
TCAGCTCCTGTGAGGGTCTGGTTAGGAGAGAGCCATTTTTAAGGACAGGGAGTTTTATAGCCCTTTTCTACTTT
CCTCCCCCTCCTCCAGTCCTTATCAATCTTTTTTCTTTTTCTGACCCCTCCTTCTGGAGGCAGTTGGGAGCT
ATCCTTGTTTTATGCCTCACTATTGGCAGAAAAGACCCCATTTAAACCCAGAGAACACTGGAGGGGGATGCTCTA
GTTGGTTCTGTGTCCATTTTCTCTGTGCCAAAGACAGACAGACAGAGGCTGAGAGAGGCTGTTCTGAATCAAA
GCAATAGCCAGCTTTCGACACATACCTGGCTGTCTGAGGAGGAAGGCCTCCTGGAACTGGGAGCTAAGGGCGAG
GCCCTTCCCTTCAGAGGCTCCTGGGGATTAGGGTGTGGTGTTCCTCAAGCCAAGGGGTAGGGAGCCGAGAAATT
GGTCTGTGCGCTCCTGGTTGCATTTGGGGAAGGAGAGGAAGTTTGGGGCTCCAGGTAGCTCCCTGTTGTGGGAC
TGCTCTGTCCCTGCCCTACTGCAGAGATAGCACTGCCGAGTTCCCTTCAGGCCTGGCAGACGGGCAGTGAGGA
GGGGCTCAGTTAGCTCTCAAGGGTGCCTTCCCTCCTCCCAACCAGACATAACCTCTGCCAACTGGGAACCA
GCAGTGCTAGTAACCTACCTCACAGAGCCCCAGAGGGCTGCTTGAGCCTTCTTGCTCCACAGGAGAAGCTGGTGC
CTCTAGGCAACCCCTTCCCTCCACCTCTCATCAGGGTGGGGTCTCCTTTCTTTCCCTGAAGTGTTATGGG
GAGATCCTAGTGGCTTTGCCATTCAAACCACTCGACTGTTTGCTGTCTTCTGAAAACAGTAGAAGGGAAACAG
CACAGCCTGTACAGTAATTGCAGGAAGATTGAAGAAAAATCCTCATCAATGCCAGGGGACATAAAAGCCATTTTC
CCTTCCAAATACTCGACAATTTAGATGCAGAACATTTCTCTGTATTCACTTAGAGTAACACCAGCTGAAAAC
GCAGTTTCTTTCTTTGGATACATAAGGCTTCTCTATCGGGGTACGGGACAGGGAGGAGGCCTCATGTCTGAAGG
GGGATTTAGGGGCGAGAGCCCCAGCCCTGACCCCTCGTCTGTGCACCGCTTTGGGGCACAGTCTGATGGCGCCT
TTGCTGGCGCCTTAGTATGGTTGACTCCGGATGGACAAAAAGAAAAAAATTTTTTTCTTGAATGAAATAGCAGG
AAGCTCCTCGGGAGCATGTGTTTTGATTAAACCGCAGGTGATGGATGCTACGAGTATAAATGGATTAACCTACCTCA
ATCCTTACAGTAAGATTGGAACCTAAGGGCAGGGACTCATGCATAAGGGTATGAATCCAGCCAGGACAAGTGAGT
TGAGGCTTGTTGCCACAAAAGGTTTGTCTTGGGGAAACAGGCAGGCCTGCCAGGATCCCCCATATCGATTGGGC
TGGGAGGGCTGGCCATGAGGTCCCCACTTTCTGCTTTCTTGGCCATGTGTACCCCTTTGGCCTCCAGCTTGTC
CCTCTCTCACTTTCTATAGCTTTGTGGACCAGATGGTGAGGAAAGGAATGGCCTCTTCCCTTCTAGAGGGGGCT
GGCTGGAGTGAGACCTGGGGCTTGGCCTGGAACCCACCACAGCCCCAAAGTCAGGAAGCCTGGGGAAACCAGA
GCTGAGACCTCTTCAACAGGGTTTCTTTGAGATCCTACACCTCCATTGGGCCCTTTTTAGTCTTCAATGGGGGC
CCAGTTGGCTCTAGAAGGAGAAGAGGTGAAGCAGGATCCTTTGCCCTGGGGAGTCTGAGGGCGCGGTCCTTGGA
CTCATTCAGGCCGTCTTTGTAGTTGGGGGAGTTCCACTGGGCGATCCAGCCCTCCCCACCCACCTCTAATGG
ACCTCCTCATAGAAGCCCCATTTCACTTTGTTTTATCTACCTCTTAGCAAAACAATAGATAAATTAGGTAGTGG
CAGCTCCACTTGCTTAGGTTAGGGGGGAAAAAGATTTCTTTTCCAAAGGAAAAAAATATTACCTTGAGAATAC
TTTCCAAAAATAAAATTAATAAAAAAAAAA

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FIGURE 4914

MALIPSRVWLPFAVWVDSAPVRGLVRREPFLRTGSFIALFYFPPLLPVLINLFSFFLTSPFWRQLGAILVYASL
LAETPPFKTQRTLEGDALVGSVSIFLCAKDRQTEAERGCS

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FIGURE 4915

GGGACGTGGAGACCCGGGGTCCCGGCAGCCGGGCGGCCCGGGGCCAGGGTGGGGATGCACCGCCGCGGGGTGG
GAGCTGGCGCCATCGCCAAGAAGAACTTGCAGAGGCCAAGTATAAGGAGCGAGGGACGGTCTTGGCTGAGGACC
AGCTAGCCCAGATGTCAAAGCAGTTGGACATGTTCAAGACCAACCTGGAGGAATTTGCCAGCAAACACAAGCAGG
AGATCCGGAAGAATCCTGAGTTCCGTGTGCAGTTCCAGGACATGTGTGCAACCATTGGCGTGGATCCGCTGGCCT
CTGGAAAAGGATTTTGGTCTGAGATGCTGGGCGTGGGGGACTTCTATTACGAACTAGGTGTCCAAATTATCGAAG
TGTGCCTGGCGCTGAAGCATCGGAATGGAGGTCTGATAACTTTGGAGGAACTACATCAACAGGTGTTGAAGGGAA
GGGGCAAGTTCGCCAGGATGTCAGTCAAGATGACCTGATCAGAGCCATCAAGAACTAAAGGCACTTGGCACTG
GCTTCGGCATCATCCCTGTGGGCGGCACCTTACCTCATTGAGTCTGTTCCAGCTGAGCTCAATATGGATCACACCG
TGGTGTGTCAGCTGGCAGAGAAGAATGGCTACGTGACTGTCAGTGAGATCAAAGCCAGTCTTAAATGGGAGACCG
AGCGAGCGCGGCAAGTGTGGAACACCTGCTGAAGGAAGGGTTGGCGTGGCTGGACTTACAGGCCCCAGGGGAGG
CCCACTACTGGCTGCCAGCTCTCTTCACTGACCTCTACTCCCAGGAGATTACAGCTGAGGAGGCCAGAGAAGCCC
TCCCCTGACTGCATGTGGAAGGGCACACAGCAGCAGGCAGGGAGGAGGCGGAGGTGGCAAATAAACCTGGGCAAT
TTTGTTTATACAAAAAATAGAAAAAA

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FIGURE 4916A

AGCAGACGGGAGTTTCTCCTCGGGGTCGGAGCAGGAGGCACGCGGAGTGTGAGGCCACGCATGAGCGGACGCTAA
CCCCCTCCCCAGCCACAAAGAGTCTACATGTCTAGGGTCTAGACATGTTTCAGCTTTGTGGACCTCCGGCTCCTGC
TCCTCTTAGCGGCCACCGCCCTCCTGACGCACGGCCAAGAGGAAGGCCAAGTCGAGGGCCAAGACGAAGACATCC
CACCAATCACCTGCGTACAGAACGGCCTCAGGTACCATGACCGAGACGTGTGGAAACCCGAGCCCTGCCGGATCT
GCGTCTGCGACAACGGCAAGGTGTTGTGCGATGACGTGATCTGTGACGAGACCAAGAAGTGTCCCGGGCGCGAAG
TCCCGAGGGCGAGTGTGTCCCGTCTGCCCCGACGGCTCAGAGTCACCCACCGACCAAGAAACCACCGGCGTCG
AGGGACCCAAGGGAGACACTGGCCCCGAGGCCAAGGGGACCCGACGGCCCCCTGGCCGAGATGGCATCCCTG
GACAGCCTGGACTTCCCGGACCCCCCGGACCCCCGACCTCCCGGACCCCCCTGGCCTCGGAGGAACTTTGCTC
CCCAGCTGTCTTATGGCTATGATGAGAAATCAACCGAGGAATTTCCGTGCCTGGCCCCATGGGTCCCTCTGGTC
CTCGTGGTCTCCCTGGCCCCCTGGTGACCTGGTCCCCAAGGCTTCCAAGGTCCCCCTGGTGAGCCTGGCGAGC
CTGGAGCTTCAGGTCCCATGGGTCCCCGAGGTCCCCCAGGTCCCCCTGGAAAGAATGGAGATGATGGGGAAGCTG
GAAAACCTGGTGCCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
TCCCTGGAATGAAGGGACACAGAGTTTTCAGTGGTTTGGATGGTGCCAAGGGAGATGCTGGTCTGCTGGTCTTA
AGGGTGAGCCTGGCAGCCCTGGTGAAAATGGAGCTCCTGGTCAGATGGGCCCCCGTGGCCTGCCTGGTGAGAGAG
GTCGCCCTGGAGCCCTGGCCCTGCTGGTGTCTGTGAAATGATGGTGCTACTGGTGCTGCCGGGCCCCCTGGTC
CCACCGGCCCGCTGGTCTCCTGGCTTCCCTGGTGTCTGTTGGTGCTAAGGGTGAAGCTGGTCCCCAAGGGCCCC
GAGGCTCTGAAGGTCCCCAGGGTGTGCGTGGTGAGCCTGGCCCCCTGGCCCTGCTGGTGTCTGGCCCTGCTG
GAAACCTGGTGCTGATGGACAGCCTGGTGCTAAAGGTGCCAATGGTGCTCCTGGTATTGCTGGTGTCTCTGGCT
TCCCTGGTGCCCCGAGGCCCTCTGGACCCCAGGGCCCCGGCGGCCCTCCTGGTCCCCAAGGGTAACAGCGGTGAAC
CTGGTGCTCCTGGCAGCAAAGGAGACACTGGTGCTAAGGGAGAGCCTGGCCCTGTTGGTGTTCAAGGACCCCTG
GCCCTGCTGGAGAGGAAGGAAGCGAGGAGCTCGAGGTGAACCCGGACCCACTGGCCTGCCCGGACCCCTGGCG
AGCGTGGTGGACCTGGTAGCCGTGGTTTCCCTGGCGCAGATGGTGTTGCTGGTCCCCAAGGGTCCCGCTGGTGAAC
GTGGTTCTCCTGGCCCTGCTGGCCCCAAAGGATCTCCTGGTGAAAGCTGGTGCTGCCGGTGAAGCTGGTCTGCCTG
GTGCCAAGGGTCTGACTGGAAGCCCTGGCAGCCCTGGTCTGATGGCAAACTGGCCCCCTGGTCCCGCCGGTC
AAGATGGTGCCCCGGACCCCGAGGCCACCTGGTGCCCGTGGTGACGGCTGGTGATGGGATTCCCTGGACCTA
AAGGTGCTGCTGGAGAGCCCGCAAGGCTGGAGAGCGAGGTGTTCCCGGACCCCTGGCGCTGTGGTCTCTGCTG
GCAAAGATGGAGAGGCTGGAGCTCAGGGACCCCTGGCCCTGCTGGTCCCGCTGGCGAGAGAGGTGAACAAGGCC
CTGCTGGCTCCCCCGGATTCCAGGGTCTCCCTGGTCTCTGGTCTCCTCAGGTGAAGCAGGCAAACCTGGTGAAC
AGGGTGTTCTTGGAGACCTTGGCGCCCCCTGGCCCCCTTGGAGCAAGAGGGCGAGAGAGGTTTCCCTGGCGAGCGTG
GTGTGCAAGGTCCCCCTGGTCTGCTGGTCCCCGAGGGGCCAACGGTGCTCCCGGCAACGATGGTGCTAAGGGTG
ATGCTGGTGCCCTGGAGCTCCCGGTAGCCAGGGCGCCCCCTGGCCTTCAGGGAATGCCTGGTGAACGTGGTGCAG
CTGGTCTTCCAGGGCCTAAGGGTGACAGAGGTGATGCTGGTCCCAAAGGTGCTGATGGCTCTCCTGGCAAAGATG
GCGTCCGTGGTCTGACTGGCCCCATTGGTCTCCTGGCCCTGCTGGTGCCCCCTGGTGACAAGGGTGAAAGTGGTC
CCAGCGGCCCTGCTGGTCCCACTGGAGCTCGTGGTGCCCCCGGAGACCGTGGTGAGCCTGGTCCCCCGGCCCTG
CTGGCTTTGCTGGCCCCCTGGTGTGACGGCCAACCTGGTGCTAAAGGCGAACCTGGTGATGCTGGTGCTAAAG
CCGATGCTGGTCCCCCTGGCCCTGCCGGACCCGCTGGACCCCTGGCCCCATTGGTAATGTTGGTGCTCCTGGAG
CCAAAGGTGCTCGCGGCAGCGCTGGTCCCCCTGGTGCTACTGGTTTCCCTGGTGCTGCTGGCCGAGTCGGTCTCT
CTGGCCCCCTTGGAATGCTGGACCCCTGGCCCCCTGGTCTGCTGGTCTGCTGGCAAAGAAGCGGCAAAGGTCCCCGTG
GTGAGACTGGCCCTGCTGGACGCTCCTGGTGAAGTTGCTCCCCCTGGTCCCCCTGGCCCTGCTGGCGAGAAAGGAT
CCCCCTGGTGCTGATGGTCTCTGGTGCTCCTGGTACTCCCCGGCCCTCAAGGTATTGCTGGACAGCGTGGTGTTGG
TCGGCCTGCCTGGTGACAGAGGAGAGAGAGGCTTCCCTGGTCTTCCCTGGCCCCCTCTGGTGAACCTGGCAAACAAG
GTCCCTCTGGAGCAAGTGGTGAACGTGGTCCCCCTGGTCCCATGGGCCCCCTGGATTGGCTGGACCCCTGGTG
AATCTGGACGTGAGGGGGCTCCTGGTGCCGAAGGTTCCCTGGACGAGACGGTCTCCTGGCGCCAAGGGTGACC
GTGGTGAGACCGGCCCGCTGGACCCCTGGTGCTCCTGGTGCTCCTGGTGCCCTGGCCCCGTGGCCCTGCTG
GCAAGAGTGGTGATCGTGGTGAGACTGGTCTGCTGGTCCCACCGGTCTGTGCGGCCCTGTTGGCGCCCGTGGCC
CCGCCGACCCCAAGGCCCGCTGGTGACAAGGGTGAGACAGGCGAACAGGGCGACAGAGGCATAAAGGGTCAAC
GTGGCTTCTCTGGCCTCCAGGGTCCCCCTGGCCCTCCTGGTCTCCTGGTGAACAAGGTCCCTCTGGAGCCTCTG
GTCTGCTGGTCCCCGAGGTCCCCCTGGCTCTGCTGGTGCTCCTGGCAAAGATGGACTCAACGGTCTCCTGGCC

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FIGURE 4916B

CCATTGGGCCCCCTGGTCCTCGCGGTGCGCACTGGTGATGCTGGTCCTGTTGGTCCCCCGGCCCTCCTGGACCTC
CTGGTCCCCCTGGTCCTCCCAGCGCTGGTTTCGACTTCAGCTTCCTGCCCCAGCCACCTCAAGAGAAGGCTCAGC
ATGGTGGCCGCTACTACCGGGCTGATGATGCCAATGTGGTTCGTGACCGTGACCTCGAGGTGGACACCACCTCA
AGAGCCTGAGCCAGCAGATCGAGAATCCGGAGCCAGAGGGCAGCCGCAAGAACCCCGCCGCACCTGCCGTG
ACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATG
CCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCAGAAGA
ACTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGTTCGGCGAGAGCATGACCGATGGATTCCAGT
TCGAGTATGGCGGCCAGGGCTCCGACCCTGCCGATGTGGCCATCCAGCTGACCTTCCTGCGCCTGATGTCCACCG
AGGCCTCCCAGAACATCACCTACCCTGCAAGAACAGCGTGGCCTACATGGACCAGCAGACTGGCAACCTCAAGA
AGGCCTGCTCCTCCAGGGCTCCAACGAGATCGAGATCCGCGCCGAGGGCAACAGCCGCTTCACCTACAGCGTCA
CTGTGATGGCTGCACGAGTCACACCGGAGCCTGGGGCAAGACAGTGATTGAATACAAAACCAAGACCTCCC
GCCTGCCCATCATCGATGTGGCCCCCTTGGACGTTGGTGCCCCAGACCAGGAATTCGGCTTCGACGTTGGCCCTG
TCTGCTTCCTGTAACTCCCTCCATCCCAACCTGGCTCCCTCCCAACCAACCACTTTCCCCCAACCCGGAAC
AGACAAGCAACCCAACTGAACCCCTCAAAAGCCAAAAAATGGGAGACAATTTACATGGACTTTGGAAAATAT
TTTTTCTCTTGCATTCTCTCAAACCTTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTG
CATTCAACCTTACCAAAAAAAAAAAAAAAAAAAGAATAAATAAACTTTTTAAAAAAGGAAGCTTGGTCCACT
TGCTTGAAGACCCATGCGGGGGTAAGTCCCTTTCTGCCCCTTGGGCTTATGAAACCCCAATGCTGCCCTTTCTGC
TCCTTTCTCCACACCCCTTGGGGCCTCCCTCCACTCCTTCCCAAATCTGTCTCCCCAGAAGACACAGGAAAC
AATGTATTGTCTGCCCAGCAATCAAAGGCAATGCTCAAACACCCAAGTGGCCCCCACCCTCAGCCCGCTCCTGCC
CGCCCAGCACCCCGAGGCCCTGGGGGACCTGGGGTTCCTCAGACTGCCAAAGAAGCCTTGCCATCTGGCGCTCCCA
TGGCTCTTGCAACATCTCCCCITCGTTTTTGAGGGGGTCATGCCGGGGGAGCCACCAGCCCTCACTGGGTTCGG
AGGAGAGTCAGGAAGGGCCACGACAAAGCAGAAACATCGGATTTGGGGAACGCGTGTCAATCCCTTGTGCCGAG
GGCTGGGCGGGAGAGACTGTTCTGTTCCTTGTGTAAGTGTGTTGCTGAAAGACTACCTCGTTCTTGTCTTGATGT
GTCACCGGGGCAACTGCCTGGGGGCGGGGATGGGGGAGGGTGGAAGCGGCTCCCCATTTTATACCAAGGTGCT
ACATCTATGTGATGGGTGGGGTGGGGAGGGAATCACTGGTGCTATAGAAATTGAGATGCCCCCCCAGGCCAGCAA
ATGTTCCCTTTTGTTCAAAGTGCTATTTTATTCCTTGATATTTTCTTTTTTTTTTTTTTTTTTGTGGATGGGG
ACTTGTGAATTTTCTAAAGGTGCTATTTAATATGGGAGGAGAGCGTGTGCGGCTCCAGCCCAGCCCGCTGCTCA
CTTCCACCTCTCTCCACCTGCCTCTGGCTTCTCAGGCCTCTGCTCTCCGACCTCTCTCTCTGAAACCTCCT
CCACAGCTGCAGCCCATCCTCCCGGCTCCCTCCTAGTCTGTCTGCGTCCTCTGTCCCCGGGTTTCAGAGACAAC
TCCCAAAGCACAAAGCAGTTTTTCCCCCTAGGGGTGGGAGGAAGCAAAAGACTCTGTACCTATTTTGTATGTGT
ATAATAATTTGAGATGTTTTTAATTATTTTGATTGCTGGAATAAAGCATGTGGAAATGACCCAAACATAA

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FIGURE 4917

CCTGTTGCTGATGCTGCCGTGCGGTACTTGTCTATGGAGCTGGCACTGCGGCGCTCTCCCGTCCCGCGGTGGTTGC
TGCTGCTGCCGTGCTGCTGGGCTGAACGCAGGAGCTGTCATTGACTGGCCACAGAGGAGGGCAAGGAAGTAT
GGGATTATGTGACGGTCCGCAAGGATGCCTACATGTTCTGGTGGCTCTATTATGCCACCAACTCCTGCAAGAACT
TCTCAGAACTGCCCTGGTTCATGTGGCTTCAGGGCGGTCCAGGCGGTTCTAGCACTGGATTGGAACCTTTGAGG
AAATTGGGCCCCCTTGACAGTGATCTCAAACCACGGAAAACCACTGGCTCCAGGCTGCCAGTCTCCTATTTGTGG
ATAATCCCGTGGGCACTGGGTTCAGTTATGTGAATGGTAGTGGTGCTATGCCAAGGACCTGGCTATGGTGGCTT
CAGACATGATGGTTCTCCTGAAGACCTTCTTCAGTTGCCACAAAGAATTCCAGACAGTTCCATTCTACATTTTCT
CAGAGTCTATGGAGGAAAAATGGCAGCTGGCATTGGTCTAGAGCTTTATAAGGCCATTAGCGAGGGACCATCA
AGTGCAACTTTGCGGGGGTTGCCTTGGGTGATTCTGGATCTCCCCCGTGGATTCCGGTGCTCTCCTGGGGACCTT
ACCTGTACAGCATGTCTCTTCTCGAAGACAAAGGTCTGGCAGAGGTGTCTAAGGTTGCAGAGCAAGTACTGAATG
CCGTAAATAAGGGGCTCTACAGAGAGGCCACAGAGCTGTGGGGGAAAGCAGAAATGATCATTGAACAGAACACAG
ATGGGGTGAACCTTCTATAACATCTTAACATAAAGCACTCCACGCTCTACAATGGAGTCGAGTCTAGAATTCACAC
AGAGCCACCTAGTTTGTCTTTGTGTCAGCGCCACGTGAGACACCTACAACGAGATGCCTTAAGCCAGCTCATGAATG
GCCCCATCAGAAAGAAGCTCAAAATTATTCCTGAGGATCAATCCTGGGGAGGCCAGGCTACCAACGTCTTTGTGA
ACATGGAGGAGGACTTCATGAAGCCAGTCATTAGCATTGTGGACGAGTTGCTGGAGGCAGGGATCAACGTGACGG
TGTATAATGGACAGCTGGATCTCATCGTAGATACCATGGGTCAGGAGGCCTGGGTGCGGAACTGAAGTGGCCAG
AACTGCCTAAATTCAGTCAGCTGAAGTGAAGGCCCTGTACAGTGACCCTAAATCTTTGGAAACATCTGCTTTTG
TCAAGTCTTACAAGAACCTTGCTTTCTACTGGATTCTGAAAGCTGGTCATATGGTTCTTCTGACCAAGGGGACA
TGGCTCTGAAGATGATGAGACTGGTGACTCAGCAAGAAATAGGATGGATGGGGCTGGAGATGAGCTGGTTTGGCCT
TGGGGCACAGAGCTGAGCTGAGGCCGCTGAAGCTGTAGGAAGCGCCATTCTTCCCTGTATCTAACTGGGGCTGTG
ATCAAGAAGGTTCTGACCAGCTTCTGCAGAGGATAAAATCATTGTCTCTGGAGGCAATTTGGAAATTATTTCTGC
TTCTTAAAAAAACCTAAGATTTTTTAAAAAATTGATTTGTTTTGATCAAAATAAAGGATGATAATAGATATTATT
TTTTCTTATGACAGAAGCAAATGATGTGATTTATAGAAAACTGGGAAATACAGGTACCCAAAGAGTAAATCAAC
ATCTGTATACCCCTTCCAGGGGTAAGCACTGTTACCAATTTAGCATATGTCCTTGAGAATTTTTTTTTCTAT
ATATACATATATATTTTTTACCAAAATGAATCATTACTCTATGTTGTTTTACTATTTGTTTGACATATCAGTATA
TCTGAAACACCTTTTCATGTCAATAAATGTTCTTCTCTAACATTAA

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FIGURE 4918

MELALRRSPVPRWLLLLPLLLGLNAGAVIDWPTEEGKEVWDYVTVRKDAYMFWWLYYATNSCKNFSELPLVMWLQ
GGPGGSSTGFGNFEEIGPLDSDLKPRKTTWLQAASLLFVDNPFVGTGFSYVNGSGAYAKDLAMVASDMMVLLKTFF
SCHKEFQTVPFYIFSESYGGKMAAGIGLELYKAIQRGTIKCNFAGVALGDSWISPVDSVLSWGPYLYSMSLLEDK
GLAEVSKVAEQVLNAVNGLYREATLWGKAEMIEQNTDGVNFYNILTKSTPTSTMESLEFTQSHLVCLCQRH
VRHLQRDALSQLMNGPIRKKLKIIPEDQSWGGQATNVFVNMEEDFMKPVISIVDELLEAGINVTVYNGQLDLIVD
TMGQEAWVRKLKWPELPKFSQLKWKALYSDPKSLETSAFVKSYKNLAFYWILKAGHMVPSDQGDMALKMMRLVTQ
QE

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FIGURE 4919

CCGGACTGCGGAAGG**ATCG**GAGCTGGCCGCCGGAAGCTTCTCGGAGGAGCAGTTCTGGGAGGCCTGCGCCGAGCTC
CAGCAGCCCGCTCTGGCCGGGGCCGACTGGCAGCTCCTAGTGGAGACCTCGGGCATCAGCATCTACCGGCTGCTG
GACAAGAAGACTGGACTTCATGAGTATAAAGTCTTTGGTGTCTCGGAGGACTGCTCACCAACTCTACTGGCAGAC
ATCTATATGGACTCAGATTACAGAAAACAATGGGACCAGTATGTTAAAGAACTCTATGAACAAGAATGCAACGGA
GAGACTGTGGTCTACTGGGAAGTGAAGTACCCTTTTCCCATGTCCAACAGAGACTATGTCTACCTTCGGCAGCGG
CGAGACCTGGACATGGAAGGGAGGAAGATCCATGTGATCCTGGCCCGGAGCACCTCCATGCCTCAGCTTGGCGAG
AGGTCTGGGGTGATCCGGGTGAAGCAATACAAGCAGAGCCTGGCGATTGAGAGTGACGGCAAGAAGGGGAGCAAA
GTTTTTCATGTATTACTTCGATAACCCGGGTGGCCAAATTCGTCCTGGCTCATTAACTGGGCCGCCAAGAATGGA
GTTCCCTAACTTCTTGAAAGACATGGCAAGAGCCTGTCAGAACTACCTCAAGAAAACCT**TAAG**AAAGAGAAGCTGGGA
ACATTGCATCCATGGGTGATGTCTCTGGAAGTGCAACCACCCCAATGTCTCTGGAAGTGCCACCTGGAAGTGCCA
CCTGGAAGTGCTCTGGAAGAGCACCCACCCTGTTGAGCCTTCCCCTGCTGTTTCTGTCTTCAGAGGCCTACAC
ACTACCACATCCTTTCTAAGCATGTTTGCCTGACATCCAGCTCACTCGTCTGCTTCCTTTCTCGCTCCCCCATC
CTGGGCTGGGCTGCCTTCTTCTACAGTTCAATATGGGGCAGACTAGGGAAACCTTTGCTTGCTTACTATTAGGAG
GGGAAGTCTTCAGTAGGGAACACGATCATTCCATTGTGCAATTTTACGGGGATGGGTGGGCGGAGGGACACAACA
AAATTTAAGAATGACTATTTGGGCGGGCTGGCTCTTTTGCAGCTTGATTTCTTCCAGCTTGGGAGGGGCTGCT
GGAAGTGGCATTTCGTTTCAGAGCTGACTTTCAGTGCACCCAACTGGATGACGTGCCAATGTCCATTTGCCTTAT
GCTTTGTGGAGCTGATTAGGCTGGGATTTGAGGTGATAATCCAGTAAGTCTTTCCTCGTTCCTACTTGTGGAGGA
TCAGTAGCTGTTATGATGCCAGACCATTGGAGAAGTATCAGAGGCCTGACCGGACACATAATACGACAACCACA
TTTTTCCTCATCATCCATGAGGAAATGGATGATTTCTCTTTTCCATATGTCACTGGGGGAAAGGCTGCCTGTACC
TCTCAAGCTTTGCATTTTACTGGAACTGAGGCGTCAAGATGGCTGTGGCAGCTAGCAAAAGCAAAGATGCTTTG
TGCATAGCCTTGTGAAAAAGTATCTTTCTATGCAATAAGATGAATTTTCTCCAGAATATTTAGAAATGTAGAA
GGGATAACAGTTCACAGCCAGGTAAATTTAACTGGTGGCTTAATGACTCTGCACCTTTTTCTCAGGAATTCTGC
CTAAGTTGTCTGCCTTTTCTACCACCAAAAAGACTTTTAGTTTTCTATGCTTTCTCCTGAATTTTGGTAGGGTAA
GTATTTCTATGTCAAAGGCACAGCCTTGATGATCTCAGGGAAAAATTTAATCACTGTGTATAATGATACTGAAC
CTTGATTAATAACAGAAATTCAGGATGTAAAGCCACAGAATGGGATTTATTAATGTGGGATACCTCAGACTGTTT,
GTTTTCTTTCTGGGAAGAAAAGTGTGTTCTATAATGAATAAATATAGAGTGTTTTT

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FIGURE 4920

MELAAGSFSEEQFWEACAELOQPALAGADWQLLVETSGISITRLLDKKTGLHEYKVFGVLEDCSPTLLADIYMS
DYRKQWDQYVKELYEQECNGETVVYWEVKYFFPMSNRDYVYLRQRRDLMEGRKIHVILARSTSMPLGERSGVI
RVKQYKQSLAIESDGKKGSKVFMYYFDNPGGQIPSWLINWAAKNGVPNFKDMARACQNYLKKT

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FIGURE 4921A

CCGCCCCCGACCCGAGCTCTTTCTGCTGCCTGCCAGTTTCTGCGTCCCCGGAGAGGATCCTGCTGAGCCCAGCC
TCCCCCTCCCCTTCTCCTCCTCCTCCTTGGAGAGCCCGGGCAGCCACTGCCCCGAGCCCCAGTGACAGGAGGA
GACCATAACCCCGACAGCGCCATGCGCCAGATTCTGCCAATTCGTTTTTCAGGAGCATCTCCAGCTCCAGAACCT
GGGTATCAACCCAGCAAACATTGGCTTCAGTACCTGACTATGGAGTCTGACAAATTCATCTGCATTAGAGAAAA
AGTAGGAGAGCAGGCCAGGTGGTAATCATTGATATGAATGACCCAAGTAATCCAATTCGAAGACCAATTTTCAGC
AGACAGCGCCATCATGAATCCAGCTAGCAAAGTAATTGCACTGAAAGCTGGGAAAACTCTTCAGATTTTTAACAT
TGAAATGAAAAGTAAAATGAAGGCTCATACCATGACTGATGATGTACCTTTTGGAAATGGATCTCTTTGAATAC
GGTTGCTCTTGTACGGATAATGCAGTTTATCACTGGAGTATGGAAGGAGAGTCTCAGCCAGTGAAAATGTTTGA
TCGCCATTCTAGCCTTGCAGGGTGCCAGATTATCAATTACCGTACAGATGCAAAACAAAAGTGGTTACTTCTGAC
TGGTATATCTGCACAGCAAAATCGTGTGGTGGGAGCTATGCAGCTATATTCTGTAGATAGGAAAGTGTCTCAGCC
CATTGAAGGACATGCAGCTAGCTTTGCACAGTTAAGATGGAAGGAAATGCAGAAGAATCAACGTTATTTTTGTTT
TGCAGTTGCGGGCCAAGCTGGAGGGAAGTTACATATTAATTGAAGTTGGCACACCACCTACAGGGAACAGCCCTT
TCCAAAGAAGGCAGTGGATGTCTTCTTCTCCAGAAGCACAAAATGATTTTCTGTTGCAATGCAGATCAGTGA
AAAGCATGATGTGGTGTCTTGATAACCAAGTATGGTTATATCCACCTCTATGATCTTGAGACTGGTACCTGCAT
CTACATGAATAGAATCAGTGGAGAAACAATTTTTGTACTGCACCTCATGAAGCCACAGCTGGAATAATTGGAGT
AAACAGAAAGGGACAAGTTCTGTCACTGTGTGTGGAAGAAGAAAACATAATTCCTTACATCACCAATGTTCTACA
AAATCCTGATTTGGCTCTGAGAAATGGCTGTACGTAATAACTTAGCCGGTGTGAAGAACTCTTTGCCCGGAAATT
TAATGCTCTTTTTGCCAGGGAAATTACTCGGAGGCAGCAAAGGTGGCTGCTAATGCACCAAAGGGAATTCTTCG
TACTCCAGACACTATCCGTCGGTTCAGAGTGTCCAGCCCAGCCAGGTCAAACCTCTCCTCTACTTCAGTACTT
TGGTATCCTTTTGGACCAGGGACAGCTCAACAAATACGAATCCTTAGAGCTTTGTAGGCCTGTACTTCAGCAAGG
GCGAAAAACAGCTTTTGGAGAAATGGTTAAAGAAGATAAGCTGGAATGTTCTGAAGAACTGGGTGATCTTGTGAA
ATCTGTGGACCTTACATTGGCACTTAGTGTGTACCTAAGGGCTAACGTCCCAAATAAAGTCATTTCAGTGCTTTGC
AGAAACAGGTCAAGTCCAAAAGATTGTTTTATATGCTAAAAAAGTTGGATACACTCCAGATTGGATATTTCTGCT
GAGAAATGTAATGCGAATCAGTCCAGATCAGGGACAGCAGTTTGCCCAAATGTTAGTTCAAGATGAAGAGCCTCT
TGCTGACATCACACAGATTGTAGATGTCTTTATGGAATACAATCTAATTCAGCAGTGTACTGCATTCTTGCTTGA
TGCTCTGAAGAATAATCGCCCATCTGAAGGTCTTTACAGACGCGGTTACTTGAGATGAACCTTATGCATGCGCC
TCAAGTTGCAGATGCTATTCTAGGCAATCAGATGTTTACACATTATGACCGGGCTCATATTGCTCAACTGTGTGA
AAAGGCTGGCTACTGCAGCGTGCATTAGAACATTTCACTGATTTATATGATATAAAACGTGCAGTGGTTTACAC
CCATCTTCTTAACCTGAGTGGTTAGTCAACTACTTTGGTTCTTATCAGTAGAAGACTCCCTAGAATGTCTCAG
AGCCATGCTGTCTGCCAACATCCGTGAGAATCTGCAGATTTGTGTTTCAAGGTGGCTTCTAAATATCATGAACACT
GTCAACTCAGTCTCTGATTGAACCTTTTGAATCTTTCAAGAGTTTTGAAGGTCTCTTTTATTTTCTGGGATCCAT
TGTTAACTTTAGCCAGGACCCAGATGTGCACCTTTAAATATATTTCAGGCAGCTTGCAAGACTGGGCAATCAAAGA
AGTAGAAAGAACTCTGTAGAGAAAGCAACTGCTACGATCCTGAGCGAGTCAAGAAATTTCTTAAGGAAGCAAACT
AACAGATCAGCTACCACTTATCATTGTGTGTGATCGATTTGACTTTGTCCATGATTTGGTGTCTATTTATATAG
AAATAATCTTCAAAAGTATATAGAGATATATGTACAGAAGGTGAATCCAAGTCGACTTCCTGTAGTTATTGGAGG
ATTACTTGATGTTGACTGTTCTGAAGATGTCAAAAAAAGTATTCTTGTGTAAGAGGTCAATTCTCTACTGA
TGAGCTTGTTGCTGAGGTTGAAAAAAGAAACAGATTGAACTGCTTCTGCCTTGGCTAGAGGCCAGAAATTCATGA
GGGCTGTGAGGAGCCTGCTACTCACAATGCCTTAGCCAAAATCTACATAGACAGTAATAACAACCCGGAGAGATT
TCTTCGTGAAAATCCCTACTATGACAGTCGCGTTGTTGGAAAGTATTGTGAGAAGAGAGATCCACATCTGGCCTG
TGTTGCTTATGAACGTGGCCAATGTGATCTGGAACCTTATTAATGTTTGCAATGAGAATTCCTCTTCAAAAGTCT
TTCTCGCTACCTGGTACGTGGAAGGATCCAGAATTGTGGGGCAGCGTGTGCTGGAAAGCAATCCTTACAGGAG
ACCCCTAATTGACCAGGTTGTACAAACAGCTTTGTCTGAGACTCAGGACCCTGAAGAAGTGTGAGTAACTGTAAA
GGCTTTTATGACAGACCTTCTTAATGAACCTTATCTCTGCAATTAAGGCTGACCGTACACGTGTTATGGAGTA
TATTAACCGCTGGATAATTATGATGCCCCAGATATTGCCAATATCGCCATCAGCAATGAGCTGTTTGAAGAAGC
ATTTGCCATTTTCCGGAATTTGATGTCAATACTTCAGCAGTTCAGGTCTTAATTGAGCATATTGGAACTTGA
TCGGGCATATGAGTTTGTGTAACGTTGCAATGAACCTGCGGTCTGGAGTCAACTTGCAAAAGCCAGTTGCAGAA
AGGAATGGTGAAAGAAGCCATTGATTCTTATATCAAAGCAGATGATCCTTCTCTACATGGAAGTTGTTCAAGC

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FIGURE 4921B

TGCCAATACTAGTGGAACTGGGAAGAACTGGTGAAGTACTTGCAGATGGCCCCGTAAGAAGGCTCGAGAGTCCTA
TGTGGAGACAGAAGCTGATATTCGCACTGGCTAAAAACAAACCGCCTTGCAGAGTTAGAAGAAATTTATCAATGGACC
AAATAATGCTCATATCCAACAAGTTGGTGACCGTTGTTATGATGAAAAAATGTATGATGCTGCTAAGTTGTTGTA
CAATAATGTTTCCAATTTTGGACGTTTGGCATCTACCCTGGTTCACCTGGGTGAATATCAGGCAGCTGTTGATGG
GGCTAGGAAAGCTAACAGTACTCGAACATGGAAAGAGGTCTGCTTCGCCTGTGTAGATGGGAAAGAATTCCGTCT
TGCTCAGATGTGTGGACTTCATATTGTTGTACATGCAGATGAATTAGAAGAACTTATCAACTACTATCAGGATCG
TGGCTATTTTGAAGAGCTGATCACCATGTTGGAAGCAGCACTGGGACTTGAGCGAGCTCACATGGGAATGTTTAC
TGAATTAGCTATTCTATACTCTAAATTTAAGCCTCAGAAAATGAGGGAGCACCTGGAGCTGTTCTGGTCTAGAGT
GAATATTCCCAAGGTGCTAAGAGCTGCAGAACAAAGCTCATCTTTGGGCAGAAGCTGGTGTGTTTGTATGACAAGTA
TGAAGAATATGATAATGCCATAATTACCATGATGAATCATCCAAGTATGCCTGGAAAGAAGGGCAATTCAAAGA
TATCATTACCAAGGTTGCCAATGTGGAACATACTACAGAGCAATACAGTTCTACTTAGAATTCAGCCTCTGTT
GTTAAATGATTTGCTGATGGTGCTGTCTCCACGGTTGGATCACACTCGTGCAGTCAATTATTTAGCAAGGTTAA
ACAGCTACCACTGGTGAAACCGTATTTGCGTTTCAGTTCAGAACCATACAAACAAATCTGTGAATGAATCATTGAA
CAATCTTTTTATTACAGAAGAAGATTATCAGGCTCTGCGAACATCAATAGATGCTTATGACAACCTTTGACAATAT
CTCGCTTGCTCAGCGTTTGGAAAAACATGAAGTCAATGAGTTCAGGAGAATTGCTGCTTATCTCTTCAAAGGCAA
CAATCGCTGGAAACAGAGTGTAGAGCTGTGCAAGAAAGACAGCCTTTACAAGGATGCAATGCAGTATGCTTCTGA
ATCTAAAGATACTGAATTGGCTGAAGAACTCCTGCAGTGGTTTTTGCAGGAAGAAAAAGAGAGTGTCTTGGAGC
TTGCTGTGTTTACCTGTTACGATCTTTAAGGCCAGATGTCGTCCTAGAAACTGCATGGAGGCACAATATCATGGA
TTTTGCCATGCCCTATTTTCATCCAGGTCTATGAAGGAGTACTTGACAAAGGTGGATAAATTAGATGCTTCAGAATC
ACTGAGAAAAGAAGAAGAACAAGCTACAGAGACACAACCCATTGTTTATGGTCAGCCCCAGTTGATGCTGACAGC
AGGACCCAGTGTTGCCGTCCCTCCCCAGGCACCTTTTGGTTATGGTTATACCGCACCACCGTATGGACAGCCACA
GCCTGGCTTTGGGTACAGCATGTGAGATGAAGCGCTGATCCTGTAGTCACCTATTTTCGTACTGAAACATCGTCT
TTACCCACTTCTCAGTTTATAATGGGGGAAAACAGGCAACGTGTTCTTGTAACCTTTATTTTCATGAAGGACTTCT
TTTTGTTTCTAACTATAAACTTGGATCACCTATGTTAAAACTTATTTTCACATTCCACATCATTTTAGAATTTAT
TTTCGAAGGGGAATAGTTTCAATGTTTATTCACTTGGGCTTTTTTCTTCCCCCTCTTTCTTTAAAGAACTGCT
CAATATTCAATCTGTTGTGAAGAACCTGATTTGCACTCTGTAGTGTTTAAAGAAACAAAGAAACTCTAATATTGA
ATCTCTTAAATTTAGTGTATGTAACAGCTTACAAATACGTATTGTCTAAATGCATTTAAATCTGTTTTATTCAA
AGAAAAGCTAAAGCAAAAACACTGGCATATGACCATGCAAGACTGTGAGTGCACAAAGACAACACTAATCAGC
ACATCGTACACTGGATTGCAGTGCTTCCCAGATTATTGAAAAATGTTACAGACAACCTTGCTGATTTTTTAAATGA
GCGTAAAAGGCCCTCTAACCTATGCAGGTTTCCCCATTATGCATATAGAAAATGCTAGTATGTTTTGCTCACTTC
ATATGTAACAGGTGCCCTTATGTTGTGCTGTATCCTGTGCTTTTTCTGTGGGACCATTCCATTGAGGAGCAAAGA
GCACCATGATTCCAATCTTGTGTGTTTACTAACCCTTCCCTGAGGCTTGTGTATGTTGGATATTGTGGTGTGTT
TAGATCACTGAGTGTACAGAAGAGAGAAATTCAAACAAAATATTGCTGTTCTTCAGTTTTGTTTGTGGAATTTGA
AATTACTCAAATTTAAATAAATTACTGGACTGTGG

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FIGURE 4922

MAQILPIRFQEHLLQLQNLGINPANIGFSTLTMESDKFICIREKVGEQAQVVIIDMNDPSNPIRRPI SADS AIMNP
ASKVIALKAGKTLQIFNIEMKSKMKAHTMTDDVTFWKWISLNTVALVTDNAVYHWSMEGESQPVKMFDRHSSLAG
CQIINYRTDAKQKWLTLTGISAQONRVVGAMQLYSVDRKVSQPIEGHAASFAQFKMEGNAEESTLFCFAVRGQAG
GKLHIEVGTPTGNQPFPPKAVDVFFPPEAQNDFFVAMQISEKHDVVFLITKYGYIHLYDLETGTCIYMNRI
ETIFVTAPHEATAGIIGVNRKGQVLSVCVEEENIIPYITNVLQNPDLALRMAVRNNLAGAEELFARKFNALFAQG
NYSEAAKVAANAPKGILRTPDTIRRFQSVPAQPGQTSPLLOQYFGILLDQGQLNKYESLELCRPVLQQGRKQLEK
WLKEDKLECSEELGDLVKSVDPTLALSVELRANVPNKVIQCFAETGQVQKIVLYAKKVGYPDWIFLLRNVMRIS
PDQGGQFAQMLVQDEEPLADITQIVDVFMENLIQOCTAFLLDALKNNRPSEGPLQTRLLEMNLMHAPQVADAIL
GNQMFTHYDRAHIAQLCEKAGLLQRALEHFTDLYDIKRAVVHTHLLNPEWLVNYFGSLSVEDSLECLRAMLSANI
RQNLQICVQVASKYHEQLSTQSLIELFESFKSFEGFLFYFLGSIVNFSQDPDVHFYIQAACKTGQIKEVERICRE
SNCYDPERVKNEFLKEAKLTDLPLIIVCDRDFDFVHDLVLYLYRNNLQKYIEIYVQKVNPSRLPVVIGGLLDVDCS
EDVIKNLILVVRGQFSTDELVAEVEKRNRLKLLLPWLEARIHEGCEEPATHNALAKIYIDSNNNPERFLRENPHY
DSRVVGKYCEKRDPHLACVAYERGQCDLELINVCNENSLFKSLSRYLVRKDPPELWGSVLLESNPYRRPLIDQVV
QTALSETQDPPEEVSVTVKAFMTADLPNELIELLEKIVLDNSVFSEHRNLQNLILTAIKADRTRVMEYINRLDNY
DAPDIANIAISNELFEEFAIFRKFDVNTSAVQVLIHIGNLDRAYEFAERCNEPAVWSQLAKAQLQKGMVKEAI
DSYIKADDPSSYMEVVQAANTSGNWEELVKYLQMARKKARESYVETELIFALAKTNRLAELEEFINGPNNNAHIQQ
VGDRCYDEKMYDAKLLYNNVSNFGRLASTLVHLGEYQAAVDGARKANSTRTWKEVCFAVDGKEFRLAQMCGH
IVVHADELEELINYYQDRGYFEELITMLEAALGLERAHMGMTLAILYSKFKPQKMRHLELFWSRVNIPKVL
AAEQAHLWAEVLVFLYDKYEEYDIAITMMNHPTDAWKEGQFKDIITKVANVELYYRAIQFYLEFKPLLLNDLLMV
LSPRLDHTRAVNYFSKVKQLPLVKPYLRSVQNHNNKSVNESLNNLFITEEDYQALRTSIDAYDNFDNISLAQRLE
KHELIEFRRIAAYLFKGNRQKQSVELCKKDSLYKDAMQYASESKDTELAELQLWFLQEEKRECFGACLFCTCYD
LLRPDVVLETAWRHNIMDFAMPYFIQVMKEYLTKVDKLDASESLRKEEQATETQPIVYGQPQLMLTAGPSVAVP
PQAPFGYGYTAPPYGPQPGFGYSM

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FIGURE 4923

TTTCCAGCCCCGGCCCCGGACCCTGCAGCTGCAGAGATGTTGATGCCTAAGAAGAACTGGATTGCCATTTATGAA
CTCCTTTTTTAAGGAGGGAGTCATGGTGGCCAAGAAGGATGTCCACATGCCTAAGCACCCGGAGCTGGCAGACAAG
AATGTGCCCAACCTTCATGTCATGAAGGCCATGCAGTCTCTCAAGTGCCGAGGCTACGTGAAAGAACACTTTGCC
TGGAGACATTTCTACTGGTACCTTACCAATGAGTGTATCCAGTATCTCCGTGATTACCTTCATCTGCCCCCGGAG
ATTGTGCCTGCCACCCTACGCCGTAGCCGTCCAGAGACTGGCAGGCCTCGGCCTAAAGGTCTGTATATGAGGAGT
GCTGTGCTACCTGGTGGCGACAAGAAAGCCGAGGCTGGGGCTGGGTCAGCAACCGAATTCTAGTTTAGAGGCGGA
TTTGTTGTGGACGTGGTCAGCCACCTCAGTAAACTGGAGAGGATTCTTTTGCAATTGAATAAATTTACAGCCAA
AAAA

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FIGURE 4924

AACCGGCGCCAGCCATGGCCTCTGGGGCGGGCGGAAGCTGGGGTGCCTCCCCACCGCAGAGCGCAGTCCCGACGC
CCTGGGTACCTTCCCTGCAGCCCCCTCTCGTGGGCCGTCCACCTGCGCCCCCGCAGCCAGGCCGCGTGAAGGAAG
ACCTGCTGGAACGTATGATGCTGCAGAACGCGCAGATGCACCAGCTGCTGCTGAGTCGCCTGGTGGCTGGAGCGC
TGCAGCCCCCGCCTGCCCTCGCCCTGCCCTCAGGTCTACCTGGAGGTTCCACAGGAAGAGCCTGAGGAGGAGGAGG
AGGAGATGGACGTGCGGGAGAAAGGGCCCTTGGTGTTTACCACCCTACTTGCCCTATTTGATGCCCTCCCCGG
GTGCCCTGCTGCCCTGGCCAGCCCCCTTCTTCCCCACCCCTGCTTGTGAGCCCTACTTGAGGACGTGCCAGGA
TTCAGCACTGTCTGCCCTCCAGGGAAGGGAGGTGAGAGCTGTGCCCCACCCCAACCCCACTGCCACAGGGA
CTGTGGGTGCTGATGTACCCCGGCTTCAGACTACTATGATGCCGAGAGCCTCCTATGAGGACAGACCCCGGCC
TGGAACCTGCACCAGCTTCTGCTCTGGATACAGCCCCGAGCCGCTCCTGCACCTCTCTTGTGACTCCCCGG
TGCCCATGGCTGGCAGTCTTCTCACTCCCTCAACCTCAGCCAGGCCCTCTTCTCTGGGGAATCAGTCCCTGC
CCCACGCCAATGAGTTCCTGGACGGGCCGGATCTGTGCTGTTGTGTAAGAGCTCCCTAGAGCACCACCCAGGCC
TTGAAGCCACGTACAGCCGCCCTCTGCCCACTGCTTCTGCTGGAGCAGGGGGAGGCTGGGAACAGAGCCCC
ACCCTCTCTCCCTCACCCTCTCTCTGGGATGATGAGGTCTCCTTCCAGCTAGTAATGGAGCAAGAGGGGAGGG
GGGGATTCTTCTGCTTTCCACAGCTTTGAAGGCCCTTTGAGGTGGCTGGAGGGGCCAGAGTGGTCGGGGAGA
GACTTTGCTGGGCAGCGCCCCGAGCAGAGTCAGTTCGCTGGGCCCCCAACCCCTCATCCCAGGAAGCAGCTCTG
TTGGCAGAAAGGAGAGGTGAGAGCTTTGCTCTGCTGTGGCCAGGAGTGGCTGAGGTCTCTGGGGCCAGGTGGG
AACAGTGTGCTCTGCCCCCTGGGCCAGGGTGTGTTCCCCCAACCTCCCTCAGTAGCAATGAGCTACTCGGGC
CAGATGGGGGCTGTGTCATGGGCTGGGAGGCCCTGTGAAGGAGAGGGTGGGGAGGGAGGCATCTAGGGAGAGG
GGTCCCCCATGGTGGCTCCCCCTCCCTGGCCATTGTTATCCCAGGAGGAGACACTGTGGGCACAGGGCTAAGTCCA
GGTGTGTTGATTTCGGGCTAGAAAAGGCAATGTCCCAAGTCTCTGCTGCTGTACAGTCCTTCAGCCAGGGCTGG
ACCTCAACCCTGAGGAGTCACACTGAGTTCAGTGACCACCGTGGTGGTGGCCATGCCACTCATGGTTGCTATGG
CCGGAAGGCCCTGGGGCAGCCTCCTCCAAGCCGCTCGCACCCCGTAGGTGCCCATCCGCTGCTGGCGCAAGTGCTG
GCCGAAGATGAAGCAGAGCAGGACAGATGTACGAACAGGGACAGCAACACCGACACCACCGTGACTATGATGAC
CATCTGGCTGTCCGACACAGGCTCTGGGGAGGGAGGGGGCAAGGGTCTTAGACGTCTGTGATCCCAGTTACCAG
GGACCAAAAGGGAGTGGAAGTCCACCCCCAACCCAGACCCCCAGACCCCGCCGCTCATGTCATCCAGCAGTC
ACCCAGTTGCAGAGATGAGTGGTGAATGGTGTCTGCATTAAATATTATCTGGAAAAAGGTGGCCCAGGGCT
CAGGCTACCAGCTGGACTTCTGTGTGGCTGTGAGGGCAGATGTCCCTTGTGTCAGCAGCCATGGGACCAGTGTGTA
GCTGCTGGACACCGTGGCCTGGAGGGTGGCATGGTCCCAGCCAAGCCCTTCTTGGGCAGAGCTGAGTGAACCTC
ATGCCAGGCTCCCTGTGTGCCGGCCGTCCAGGGTCACCAAGCAGCAGAGCTCTGGGGACCTCAGTGGGGGCAGTC
AGGCCAACTTCTCATTTGTGGAGGGGAGCCAAGGCCAGGGAGAGCCGTCAAGGTTCATGGGGCTTGATGGTGGCCG
AGGAACTAGTTGACCTCTCCCCGACCTCTGGAGCAGTTGAGGTCCAAGCTGGGGACTTGGAAGAAGCTTCAGGGAA
GAGGGAGAGTAAGAGGGGAAGCCTCAGGATGAAGGGTGGGCTCCTGGGTGTTTGCTTCCCAAGTGGGACTCAAGAT
TTTTCTTCCCCGAGGGGCTGAAAGTGACTTATCACTCCCAACTCCATCCACGGATCCCCCTCACCATAGATCT
CCAACATCTTCGGGGCTGAGTGTGTTGTGAAAGATGTTGCCACCGCGAGACATCAAGTCCAGCACAGCCAGGCAGG
AGAAGTTGCGGTGGCCATCCTCTCTGTGAGCCGTGCTGTTGAATGTGGCTGTGGCCTCCTGCGGAGCAGGGGCTG
CCTTCCCGAAGGTCTCATAGTGACAGTCTCATTGCCACGGAACAGGAAGAGGGTGGGCTGTCCAGGGGCTCCA
CGGTGGGCACCCCTGCACTCAATGGTGAAGGACTTGCCACAGCCACCAAAGTGGGTGTCAGTGTGAGGATGACCT
GCCTTGGAGGCTCTGCAGGGGACAAAGGAGGGAGGTCTGGTCAGGATGGGGGTGTCAGTCCCAGCAGCCTCCCCCT
GGCCAGGGCCATCTCCTGTACCATGGTGTTCACGGTTGGGGAGGAGGTGGCCTGGCCGGCTCCAGTGCAGAGA
GGAAGAGGGCAGCAGTTGAGGATGGAGGCTGGACTGTGTGGTAGTTTTACAGACATGATGGTTTCCGGTGACCAG
GTGTCTACAAGGACAAGGTTTCAAGAAATGTACAGCCAAGTGGAAAGATATAAAAGTTTGGGTCTGTCTCCTCTCC
TTCAGAAATGAAATATAAATTTCAAACATTAAACAGTTGGGTGATCACGTTG

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FIGURE 4925

MASGAGGSWGRSPPPQSAVPTPWVTFLOPLSWAVPPAPPQGRVKEDLLELMMLQNAQMHQLLSRLVAGALQPRP
ASPCPQVYLEVPQEEPEEEEEEMDVREKGPLVFHHHYLPYLMPSPGALLPWPAPFFFTPACQPYLQDVPRIQHCP
ASREREVRVPPPPPSATGTVGADVPPASDYDAESLL

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FIGURE 4926

GGCGGCCAAACCTCCGGAGGCCGGGGACGGAAGCGGGCCCCGAGCAGATCCTGGATCCGGAATCTCCCGGGCAG
GAGCGGAATCTGTCCCGAACCGGGTCTGTGAGGAACCTCGCGAACTTGGATTAGGAAATCCCGGAGCCCCGGATCGA
CAAATCCCGGAACCCGGAATTAAGATCGCCAAGTCCCGGATCGCGGAGCACAGAGCACGGAGTGGACTCGACGCG
GAGCCCGGAGTCCGGATCGCGGCACCGCGGGACGGGACGGAGCGATGTCGGGCCGAGGCGGGCGGGTTCGCCG
TGCCCCCGCTAAGCCCTGGCGGGCGGCCGTGGCTGCGGCCCTGGGAGCGCCGCTCCCCCGCGGGACCCGGCA
TGCTGCCCCGACCGGCGCTCCGGGGACCGGTCCGGCAGGAGGCGTGGGGGGCCCCGGGGCCGCCCTTCCGCC
CCATGGGCCCCGCGGGCCCCGCGGCGCAGTACCAGCGACCTGGCATGTCACCAGGGAACCGGATGCCCATGGCTG
GCTTGAGGTGGGACCCCTGCTGGCTCCCCATTTGGTGCAGCAGCTCCGCTTCGACCTGGCATGCCACCCACCA
TGATGGATCCATTCCGAAAACGCCTGCTTGTGCCCCAGGCGCAGCCTCCCATGCCTGCCAGCGCCGGGGTTAA
AGAGGAGGAAGATGGCAGATAAGGTTCTACCTCAGCGAATCCGGGAGCTTGTTCAGAGTCTCAGGCGTACATGG
ATCTCTTGGCTTTTGAGCGGAAGCTGGACCAGACCAATTGCTCGCAAGCGGATGGAGATCCAGGAGGCCATCAAAA
AGCCTCTGACACAAAAGCGAAAGCTTCGGATCTACATTTCCAATACGTTTCAGTCCCAGCAAGGCGGAAGGCGATA
GTGCAGGAAGTGCAGGGACCCCTGGGGGAACCCAGCAGGGGACAAGGTGGCTTCTGGGAACTCCGAGTGGAAG
GAAACTGCTGGATGATCCTAGCAAACAGAAGAGGAAGTTTTCTTCATTCTTTAAGAGCCTCGTCATTGAGCTGG
ACAAGGAGCTGTACGGGCCTGACAATCACCTGGTGGAGTGGCACCGGATGCCACCACCCAGGAGACAGATGGCT
TCCAAGTAAAACGGCCTGGAGACCTCAACGTCAAGTGCACCCCTCTGCTCATGCTGGATCATCAGCCTCCCCAGT
ACAAATTGGACCCCCGATTGGCAAGGCTGCTGGGAGTGCACACGCAGACGAGGGCCGCCATCATGCAGGCCCTGT
GGCTTTACATCAAGCACAAACCAGCTGCAGGATGGGCACGAGCGGGAGTACATCAACTGCAACCGTTACTTCCGCC
AGATCTTCAGTTGTGGCCGACTCCGTTTTCTCCGAGATTCCCATGAAGCTGGCAGGGTTGCTGCAGCATCCAGACC
CCATTGTTCATCAACCATGTCTATTAGTGTGACCCCTAACGACCAGAAGAAGACAGCCTGTTACGACATCGATGTGG
AGGTGGACGACCCACTGAAGGCCCAAATGAGCAATTTTCTGGCCTCTACCACCAATCAGCAGGAGATCGCCTCCC
TTGATGTCAAGATCCATGAGACCATTGAGTCCATCAACCAGCTGAAGACCCAGAGAGATTTTCATGCTCAGTTTTA
GCACCGACCCCCAGGACTTCATCCAGGAATGGCTCCGTTCCAGCGCCGAGACCTCAAGATCATCACTGATGTGA
TTGGAAATCCTGAGGAGGAGAGACGAGCTGCTTTCTACCACCAGCCCTGGGCCCAGGAAGCAGTAGGCAGGCACA
TCTTTGCCAAGGTGCAGCAGCGAAGGCAGGAAGTGAACAGGTGCTGGGAATTCGCCTGACCTAACTGCTCAGGG
ATCTTTCTTCCAGCCCTGGAGCCTGGAGGGAGACCACCTCTGGGTCTTGCTGGGGCCGAGACACGTAGGCT
GGGGTGAGGAGTGTCTGCTGTCAACCTCTACTCTCCAGCTTTAGTCTTATAAATGTAGTGATAGGATTCCTTGT
GCTTGGTCCCCAAAGCCTTATACTTTTTGCATTGGCTTTAATTGGGTTTCAGCAGATGCCTCCTCTGCCCCCTGC
AGGCAGGCCCAAGTAGGACTGCTGGAGGCTGTGCTTTGACATTGTAAGACATTTCCGAACCAAAGGCTGCTGGGT
TTGCATGTTTACAGACTCCCCCTGGGGCGAGGGTCAGAGCTGGCTCTGGGGAGCTGGGCTAGGAAGAGGAGGTGC
AGCCCAGACTCTTCTAGCCTTTCTAAACCAAAGTTCTTTGCCATTCTTACAAGCCAGCCTTGCTGCTGGTTTT
TTCCTTTCTTTGGGTATTTGCACTATTTTGGGAGCAAGTTTTCTATGTGGGAGCCACTTTTTTTGTACAGGGGT
AAGTTGGGGTTTTTCAGGGAGCCTGTTAGGTGCTCTCTTTCTTTCTTCTCAATCTATGCAAGCGGCTCTGGCC
GCCATCATCTCCTGGGATGCCAGAGGGCTGCCTCTCCAGCGGCTTGGGCCGGGGAGGGGACACTCCAGTTCTCTA
GCATGGCCTGAGGTATGGGGTATGTGCATGTGGAGGCCAGGGTAAGGTGAATGGGGAGGCTGGGAGGACTGGTGT
TGCCCTTTGGAGCTTGGTGAAGAGGGTGGGCCTAGGGCTTGGCGAGTGCCACATCTGGCAGGTTTGGAATTTCC
AAATAAATCCTTTTGTCT

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FIGURE 4927

ATGGCGCTTGACGGACCAGAGCAGATGGAGCTGGAGGAGGGGAAGGCAGGCAGCGGACTCCGCCAATATTATCTG
TCCAAGATTGAAGAACTCCAGCTGATTGTGAATGATAAGAGCCAAAACCTCCGGAGGCTGCAGGCACAGAGGAAC
GAACTAAATGCTAAAGTTCGCCTATTGCGGGAGGAGCTACAGCTGCTGCAGGAGCAGGGCTCCTATGTGGGGGAA
GTAGTCCGGGCCATGGATAAGAAGAAAGTGTGGTCAAGGTACATCCTGAAGGTAAATTGTTGTAGACGTGGAC
AAAAACATTGACATCAATGATGTGACACCCAATTGCCGGGTGGCTCTAAGGAATGACAGCTACACTCTGCACAAG
ATCCTGCCCAACAAGGTAGACCCATTAGTGTCACTGATGATGGTGGAGAAAGTACCAGATTCAACTTATGAGATG
ATTGGTGGACTGGACAAACAGATCAAGGAGATCAAAGAAGTGATCGAGCTGCCTGTAAAGCATCCTGAGCTCTTC
GAAGCACTGGGCATTGCTCAGCCCAAGGGAGTGTGTGTATGGACCTCCAGGCACTGGGAAGACACTGTTGGCC
CGGGCTGTGGCTCATCATACGGACTGTACCTTTATTCTGTCTCTGGCTCTGAACGGTACAGAAATTCATAGGG
GAAGGGGCAAGAATGGTGAGGGAGCTGTTTGTCTATGGCACGGGAACATGCTCCATCTATCATCTTCATGGACGAA
ATCGACTCCATCGGCTCCTCGCGGCTGGAGGGGGTCTGGAGGGGACAGTGAAGTGCAGCGCACGATGCTGGAG
TTGCTCAACCAGCTCGACGGCTTTGAGGCCACCAAGAACATCAAGGTATCATGGCTACTAATAGGATTGATATC
CTGGACTCGGCACTGCTTCGCCCAGGGCGCATTGACAGAAAAATTGAATTCCCACCCCCCAATGAGGAGGCCCGG
CTGGACATTTTGAAGATTCAATTCTCGGAAGATGAACCTGACCCGGGGGATCAACCTGAGAAAAATTGCTGAGCTC
ATGCCAGGAGCATCAGGGGCTGAAGTGAAGGGCGTGTGCACAGAAGCTGGCATGTATGCCCTGCGAGAACGGCGA
GTCCATGTCACTCAGGAGGACTTTGAGATGGCAGTAGCCAAGGTCATGCAGAAGGACAGTGAAGAAAAACATGTCC
ATCAAGAAATTATGGAAGT**GA**GTGGACAGCCTTTGTGTGTATCTCTCCAATAAAGCTCTGTGGGCCAAGTC

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FIGURE 4928

MALDGPEQMELEEGKAGSGLRQYYLSKIEELQLIVNDKSQNLRRLLQAQRNELNAKVRLREELQLLQEQGSYVGE
VVRAMDKKKVLVKVHPEGKFVVDVDKNIDINDVTPNCRVALRNDSTLHKILPNKVDPLVSLMMVEKVPDSTYEM
IGGLDKQIKEIKEVIELPVKHPELFEALGIAQPKGVLLYGPPGTGKTLLARAVAHHTDCTFIRVSGSELVQKFIG
EGARMVRELFVMAREHAPSIIFMDEIDSIGSSRLEGGSGGDSEVQRTMLELLNQLDGFEATKNIKVIMATNRIDI
LDSALLRPGRIDRKIEFPPPNEEARLDILKIHSRKMNLTRGINLRKIAELMPGASGAEVKGVCTEAGMYALRERR
VHVTQEDFEMAVAKVMQKDSEKNMSIKKLWK

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FIGURE 4929

ATACTTGTGCGGTTCCAAGTGTGGAGAAAGCGGCTCTGGGTCTAGATTGAGGGATACTCCCCCTTTCCACCATGG
GCAAGAAGGGCAAAGTTGGCAAGAGCCGACGAGACAAGTTTTATCACTTGGCGAAGGAGACGGGTTACCGTTCCC
GATCTGCTTTCAAGCTGATCCAGCTCAATCGCCGCTTTTCAGTTCCCTGCAGAAAGCCCGAGCCTTGCTGGACCTGT
GTGCTGCGCCAGGGGATGGCTGCAGGTAGCTGCCAAGTTTATGCCTGTATCCAGCCTTATTGTGGGAGTGGAAC
TGTTTCCAATCAAGCCTCTCCCCAATGTGGTGACTCTCCAGGAGGACATCACAAACAGAACGTTGTAGGCAGGCCC
TGAGGAAGGAGCTGAAGACCTGGAAGGTTGATGTTGTGCTCAATGATGGGGCCCCAACGTTGGGGCTAGCTGGG
TCCATGATGCTTACTCACAAAGCCATTTGACACTGATGGCTCTACGTTTGGCTTGTGACTTTTTGGCCCGTGGTG
GCAGCTTCATCACAAAGGTTTTCCGTTCTCGTGACTATCAGCCTCTGCTATGGATCTTCAGCAGCTGTTCCGCC
GTGTCCAGGCCACCAAGCCCCAAGCCTCTCGCCATGAATCTGCAGAGATCTTGTAGTCTGCCAAGGATTCTGG
CCCCTGACAAGGTTGACAGTAAATCTTTGACCCCAAATTTGCCTTTAAGGAGGTTGAAGTTCAGGCTAAGACCG
TTACTGAATTGGTTACTAAGAAGAAGCCAAAGGCTGAAGGCTATGCTGAGGGTGACCTACTCTCTATCACCGTA
CCTCAGTCACTGACTTCCTCCGAGCTGCCAACCCTGTTGACTTCCTCTCAAGGCCAGCGAAATCATGGTAGATG
ATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGCTGTGAGGACATCAGAGTGTTGGGGC
GCAAGGAGCTCAGGTCGCTACTAACTGGAGAACAACTTCGGCGATATGTGGCCAAGAAGCTGAAAGAACAAG
CAAAGGCACTGGACATCAGCCTCAGCTCTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCA
CAAAGCAGCCCTCTAAGGAGGAGGAGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCAGAAATGAAGG
CCCAGGAGGTGGCGGAATTGAAGAGGAAGAAAAGAGCTGTTGCGTGAGCAGAGAAAGCAGCGGGAGCGTGTGG
AGCTGAAGATGGATCTGCCTGGGGTTTCCATTGCAGACGAGGGGGAGACTGGCATGTTCTCCTTGTGCACCATCC
GGGGTCACCAAGTTATTAGAGGAAGTAACACAAGGGGATATGAGTGCAGCAGACACATTTCTGTCCGATCTGCCAA
GGGATGATATCTATGTGTCAGATGTTGAGGACGACGGTGATGACACATCTCTGGATAGTGACCTGGATCCAGAGG
AGCTGGCAGGAGTCAGGGGACATCAGGGTCTAAGGGACCAAAAGCGTATGCGACTTACTGAAGTGCAAGATGATA
AAGAGGAGGAGGAGGAGGAGGAATCCACTGCTGGTACCCTGGAGGAAAAGGCAGTACTGCAGGAAGAACAAGCCA
ACCTGTGGTTCTCAAAGGGCAGCTTTGCTGGGATCGAGGACGATGCCGATGAGGCCCTGGAGATCAGTCAGGCCC
AGCTGTTATTTGAGAACC GGCGGAAGGGACGGCAGCAGCAGCAGAAGCAGCAGCTGCCACAGACACCCCTTCCT
GTTTGAAGACTGAGATAATGTCTCCCTGTACCAAGATGAAGCCCCCTAAGGGAACAGAGGCTTCTTCGGGGACAG
AAGCTGCCACTGGCCTTGAAGGGGAAGAAAAGGATGGCATCTCAGACAGTGATAGCAGTACTAGCAGTGAGGAAG
AAGAGAGCTGGGAACCCCTCCGTGGTAAGAAGCGAAGCCGTGGGCCTAAGTCAGATGATGACGGGTTTGAGATAG
TGCCTATTGAGGACCCAGCGAAACATCGGATACTGGACCCCGAAGGCCTTGCTCTAGGTGCTGTTATTGCCTCTT
CCAAAAGGCCAAGAGAGACCTCATAGATAACTCCTTCAACCGGTACACATTTAATGAGGATGAGGGGGAGCTTC
CGGAGTGGTTTGTGCAAGAGGAAAAGCAGCACCGGATACGACAGTTGCCTGTTGGTAAGAAGGAGGTGGAGCATT
ACCGGAAACGCTGGCGGGAAATCAATGCACGTCCCATCAAGAAGGTGGCTGAGGCTAAGGCTAGAAAGAAAAGGA
GGATGCTGAAGAGGCTGGAGCAGACCAGGAAGAAGGCAGAAGCCGTGGTGAACACAGTGGACATCTCAGAACGAG
AGAAAGTGGCACAGCTGCGAAGTCTCTACAAGAAGGCTGGGCTTGGCAAGGAGAAACGCCATGTCACCTACGTTG
TAGCCAAAAAAGGTGTGGGCCGCAAAGTGCGCCGGCCAGCTGGAGTCAGAGGTCATTTCAAGGTGGTGGACTCAA
GGATGAAGAAGGACCAAAAGAGCACAGCAACGTAAGGAACAAAAGAAAAACACAAACGGAAGTAAGCAGAGCTGC
CAGGCTCCCAGGAGAGCATGGGGACTAGGAGGAAGGGTGTGGCTAGGCTCAGTCTGGCCCCCTTGATTACCGGCC
TAGCCCCCTGCTCACATCACAGCTGTCTGAAGAACAGTGAGGTGGAGTGCCTAGAACTCCCGTGGTGGTCTGAGC
AGAGAGGAGGATGTCTCTGCTGCTGCTGAAGGTCTCCCATGAAAACACTGCTGAAGTGTGTTGACACTCATGAC
CCTTTTTTTAAACCGTTAAAGGGAAGTTCCGTGTTGGAGCGATACTCAATGTAGTCAGTCTACACCTGGACGTGT
GGGCCACTTAAGCCCTCCCCACCCCATCCTATTCTTAAATAAAACCAGGATAATGGAAAAAAAAAAAAAAAAA

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FIGURE 4930

MGKKGKVGKSRRDKFYHLAKETGYRSRSFAFKLIQLNRRFQFLQKARALLDLCAAPGGWLQVAAKFMVSSSLIVGV
DLVPIKPLPNVVTLQEDITTERCRQALRKELKTWKVDVVLNDGAPNVGASWVHDAYSQAHLTLMALRLACDFLAR
GGSFITKVFRSRDYQPLLWIFQQLFRRVQATKPQASRHESAEIFVVCQGFLAPDKVDSKFFDPKFAFKEVEVQAK
TVTELVTKKKPKAEGYAEGDLTLYHRTSVTDFLRAANPVDFLSKASEIMVDDEELAQHPATTEDIRVCCQDIRVL
GRKELRSLNWRITKLRRYVAKKLKEQAKALDISLSSGEEDEGDEEDSTAGTTKQPSKEEEEEEEEEQLNQTLAEM
KAQEVAELKRKKKKLLREQRKQREVELKMDLPGVSIADGETGMFSLCTIRGHQLLEEVTOGDMSAADTFLSDL
PRDDIYVSDVEDDGDDTSLSDLDPEELAGVRGHQGLRDQKRMRLTEVQDDKEEEEEENPLLVPLEEKAVLQEEQ
ANLWFSKGSFAGIEDDADEALEISQAQLLFENRRKGRQQQKQQLPQTTPPSCLKTEIMSPLYQDEAPKGTEASSG
TEAATGLEGEKDGISDSSTSSSEEEESWEPLRGKKRSRGPKSDDDGFEIVPIEDPAKHRILDPEGLALGAVIA
SSKKAKRDLIDNSFNRYTFNEDEGELPEWVFVQEEKQHRIRQLPVGKKEVEHYRKRWREINARP IKKVAEAKARKK
RRMLKRLEQTRKKAEEAVVNTVDISEREKVAQLRSLYKKAGLGKEKRHVTVVAKKGVGRKVRPAGVRGHFKVVD
SRMKKDQRAQQRKEQKKKHKKR

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[illegible]

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FIGURE 4932

MAEVEDQAARDMKRLEEKDKERKNVKGIRDDIEEEDDQEAYFRYMAENPTAGVVQEEEEEDNLEYDS DGNPIAPTK
KIIDPLPPIDHSEIDYPPFEKNFYNEHEEITNLTPQQLIDLRHKLNLRVSGAAPPRPGSSFAHFGFDEQLMHQIR
KSEYTQPTPIQCQGVFVALSGRDMIGIAKTGSGKTAAFIWPMLIHIMDQKELEPGDGP IAVIVCPTRELCQQIHA
ECKRFGKAYNLRVAVYGGGSMWEQAKALQEGAEIVVCTPGRLIDHVKKKATNLQRVSYLVFDEADRMFDMGFY
QVRSIASHVRPDRQTLLFSATFRKKIEKLARDILIDPIRVVQGDIGEANEDVTQIVEILHSGPSKWNWLTRLVE
FTSSGSVLLFVTKKANAEELANNLKQEGHNLGLLHGDMQDQSERNKVISDFKKKDIPVLVATDVAARGLDIPS IKT
VINYDVARDIDTHTHRIGRTGRAGEKGVAYTLLTPKDSNFAGDLVRNLEGANQHVSKELLDLAMQNAWFRKSRFK
GGKGKKLNIGGGGLGYRERPGLGSENMDRGNNVMSNYEAYKPSTGAMGDRLTAMKAAFQSQYKSHFVAASLSNQ
KAGSSAAGASGWTSAAGSLNSVPTNSAQQGHNSPDSPVTSAAKGIPGFGNTGNISGAPVTYP SAGAQGVNNTASGN
NSREGTGGSNNGKRERYTENRGSSPSQSRRDWQSA

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FIGURE 4933

CCGCCGCCCGGGCCCCCGGCATGCAGCCCCGGCTGCGGAGGTGACACTCACGGACCTTAGCCACCGCCGCCGCCA
TCGCCACCATGGACGAACAGGAGGCATTGAACTCAATCATGAACGATCTGGTGGCCCTCCAGATGAACCGACGTC
ACCGGATGCCCTGGATATGAGACCATGAAGAACAAGACACAGGTCACCTCAAATAGGCAGAGTGACGTCAGAATCA
AGTTCGAGCACAAACGGGGAGAGGCGAATTATAGCGTTCAGCCGGCCTGTGAAATATGAAGATGTGGAGCACAAGG
TGACAACAGTATTTGGACAACCTCTTGATCTACATTACATGAACAATGAGCTCTCCATCCTGCTGAAAAACCAAG
ATGATCTTGATAAAGCAATTGACATTTAGATAGAAGCTCAAGCATGAAAAGCCTTAGGATATTGCTGTTGTCCC
AGGACAGAAACCATAACAGTTCCTCTCCCCACTCTGAGGTGTCCAGACAGGTGCGGATCAAGGCTTCCCAGTCCG
CAGGGGATATAAATACTATCTACCAGCCCCCGAGCCAGAACAGGCACCTCTCTGTGAGCTCCAGAACCCCTG
GCCGAAGCTCACCTCCCCCTGGCTATGTTCTGAGCGGCAGCAGCACATTGCCCGGCAGGGGTCTACACCAGCA
TCAACAGTGAGGGGGAGTTTCATCCCAGAGACCAGCGAGCAGTGATGCTGGATCCCCTGAGCAGTGACAGAAATT
CCTTGCTGGAAGCTGCCAATCCTTGACAGGTGAGCAGACAGCCCATCTTCCGGAATCACGAATGTCCCGTG
CCCAGAGCTTCCCCTGACAACAGACAGGAATACTCAGATCGGGAAACTCAGCTTTATGACAAAGGGGTCAAAGGTG
GAACCTACCCCCGGCGCTACCACGTGTCTGTGCACCACAAGGACTACAGTGATGGCAGAAGAACATTTCCCCGAA
TACGGCGTCATCAAGGCAACTTGTTCACCCCTGGTGCCCTCCAGCCGCTCCCTGAGCACAAATGGCGAGAATGG
GTCTGGCTGTGCAATACCTGGACCCCCGTGGGCGCCTGCGGAGTGCGGACAGCGAGAATGCCCTCTCTGTGCAGG
AGAGGAATGTGCCAACCAAGTCTCCAGTGCCCCCATCAACTGGCGCCGGGGAAAGCTCCTGGGCCAGGGTGCCT
TCGGCAGGGTCTATTTGTGCTATGACGTGGACACGGGACGTGAAGTCTGCTTCCAAGCAGGTCCAATTTGATCCAG
ACAGTCTTGAGACAAGCAAGGAGGTGAGTGCTCTGGAGTGCGAGATCCAGTTGCTAAAGAACTTGACGATGAGC
GCATCGTGACGTAATGCTGTCTGCGGGACCGCGCTGAGAAGACCCTGACCATCTTCATGGAGTACATGCCAG
GGGGCTCGGTGAAAGACCAGTTGAAGGCTTACGGTGCTCTGACAGAGAGCGTGACCCGAAAGTACACGCGGCAGA
TCCTGGAGGGCATGTCTACCTGCACAGCAACATGATTGTTTACCGGGACATTAAGGGAGCCAACATCCTCCGAG
ACTCTGCTGGGAATGTAAAGCTGGGGGACTTTGGGGCCAGCAAACGCCTGCAGACGATCTGTATGTGGGGACGG
GCATGCGCTCCGTCACCTGGCACACCCTACTGGATGAGCCCTGAGGTGATCAGCGGCGAGGGGTATGGAAGGAAAG
CAGACGTGTGGAGCCTGGGCTGCACTGTGGTGGAGATGCTGACAGAGAAACCACCGTGGGCAGAGTATGAAGCTA
TGGCCGCCATCTTCAAGATTGCCACCCAGCCACCAATCCTCAGCTGCCCTCCCACATCTCTGAACATGGCCGGG
ACTTCTGAGGCGCATTTTGTGGAGGCTCGCCAGAGACCTTACAGCTGAGGAGCTGCTCACACACCACCTTTGCAC
AGCTCATGTACTAGAGCTCTCACGGCCACACAGCTGCCGGTTCGCCCTTTGCTGCATGGCAGGGGGTGTGCTGGG
CTCAGTGAAGTTGCTGCTTCTCCAGGCAAGGCTGTGGACCATGGAGTGGCAGCCAGCCAGCGTCCGTCTGTGC
CCCTTCCGCCACTGGGGCTCAGAGCCGGGGTGGGGTGGCTGCAGCCTCAGGACTGGGAGCCCCAGCCTGTGAGA
TCCAGGAGCTCCAGTGTCTGAGCTCAGCGTGGAGGGGTAGGGGCTGGGAACAGTGTGCAAGGCAGCCGTGGGCC
CCACCCCTCGGGGATGTGTCTGACACTGCAATTGGCACCGAAGCCAGAGGGTCTGGGGGCAACAAGACTGACGCC
AGGGTATGAAGAGTGTTATTTTCAATCAAAGTGTTATTTTGTCTTCCCTTCCAATGTCTGGAGACCACCAGGGCA
TCTCTGGGCTGGATGAGCTCCACAAGCCTGAGGGAAGGCCAGCACTCGCTAGCAGTGCGAGGCAGAGGCCCCAG
GCTGCCGTCCCCTAGAGTCCCAGGTTGGCTCTGCCAGTCTGTCTTACCAAAGATGAATGAAGCAAATGTGAT
GCTGCCTTATTACAGGAAGGAGGAGCCTGTCTGCTGTGGCCATGACCCCTGCCTCTCCCAGGCAGGGGCCCCGG
ATGTGGAAGTGTGCTGCACTGAGGGGGGATCCAGTTTGTCAATGCAAGTGTCTCTGTTTTACAAGTTGGAGTCAC
TCTTATGCTGTACCCAGTTTCTAAACTGGAGACTGTGTGTGCCCTCTGGGCTCTGAGTACCCCTGCTTTGGGCTT
GGGCTTAGGCTGCATTGAAAAGAGCTGAAGGTTGTGGCCTTTGCGCTCCTGGCCAGCCTTTGTTCCCCACTGGA
GCAGAAGGGGAGATGGACGACACGGTGGGGGCATCTGGCTTGCCAGTGCCCTGATCCCAGAGAGCCCCAGGAGG
TGTCTCAGGCTGCCTGAGTCGTGACCTGCTAGGCCAGAGCCCACTCCATCTGGTAGAAGGGAAAGCCCATATGCT
ACCACCAGCTGTGTCCAAAACCGCCAGCTCTGTTCTTCTCAGCCAGCCTCGCCCATCCCCCTTGAGGTCTCAGCC
CCTTTCCCTTGTAGCTCCTCCCCCTGGAGGGGGAAATGGCAGCAGGGGTGGGGAAACAGCATCTCCAAGCAGCTTA
GAGTTGGCCATATTTACCTCAGCCTGGGCGCTGGTCTTCTTCCGGCCCCCTCCCAAAATGTGCTTATTGC
TAGAGCTCCTCCCTCTCAACACCCAGTTTCCTTGGGAGTTGTGATTAAAGGAAAAAAAAAAAAAAAAAAAA

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FIGURE 4934

MDEQEALNSIMNDLVALQMNRRHRMPGYETMKNKDTGHSNRQSDVRIKFEHNGERRIIAFSRPVKYEDVEHKVTT
VFGQPLDLHYMNNELSILLKNQDDLDKAIDILDRSSSMKSLRILLLSQDRNHNSSSPHSEVSRQVRIKASQSAGD
INTIYQPPEPRSRHLSVSSQNPGRSSPPPGYVPERQQHIARQGSYTSINSEGEFIPETSEQCMLDPLSSAENSL
GSCQSLDRSADSPSFRKSRMSRAQSFDPNRQEYSDRETQLYDKGVKGGTYPRRYHVSVHHKDYSDGRRTFPRIRR
HQQNLFTLVPSSRSLSTNGENMGLAVQYLDPRGRLRSADSENALSVQERNVPTKSPSAPINWRRGKLLQGAFGR
VYLCYDVDGTGRELASKQVQFDPDSPETSKEVSALECEIQLLKNLQHERIVQYYGCLRDRAEKTTLTIFMEYMPGGS
VKDQLKAYGALTESVTRKYTRQILEGMSYLHSMIVHRDIKGANILRDSAGNVKLGDFGASKRLQTICMSGTGMR
SVTGTPYWMSPEVISGEGYGRKADVWSLGCTVVEMLTEKPPWAEYEAMAAIFKIATQPTNPQLPSHISEHGRDFL
RRIFVEARQRPSAEELLTHHFAQLMY

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FIGURE 4935

AGAAGGAGGCCCAACCCTGAGCACAACAGCAACCTGGCCAATATCTTAGAGGTGTGTCGCAGCAAACATATGCC
CAAGTCAACGATTGAGACAGCACTGAAAATGGAGAAATCCAAGGACACTTATTTGCTGTATGAGGGTCGAGGCCC
TGGTGGCTCTTCTCTGCTCATCGAGGCATTATCTAACAGTAGCCACAAGTGCCAAGCAGACATTAGACATATCCT
GAATAAGAATGGAGGAGTGATGGCTGTAGGAGCTCGTCACTCTTTGACAAAAAGGGGGTGATTGTGGTTGAAGT
GGAGGACAGAGAGAAGAAGGCTGTGAACCTAGAGCGTGCCCTGGAGATGGCAATCGAAGCAGGAGCTGAGGATGT
CAAGGAAACTGAAGATGAAGAAGAAAGGAACGTTTTTAAATTTATTTGTGATGCCTCTTCACTGCACCAAGTGAG
GAAGAAGCTGGACTCCCTGGGCCTGTGTTCTGTGCTCTGTGCACTAGAGTTCATCCCCAACTCAAAGGTGCAGCT
GGCTGAGCCCGACCTGGAACAGGCCGCACATCTCATTGAGGCTCTCAGCAACCACGAGGATGTGATTCACGTCTA
TGATAACATTGAATAACCAGGCTACATGTGCCCCGGGTTCTTCTAGAAATGTGGCAGCCCATTCCAGCACAC
AGGCTTCTGCAGCAATCTCTGAGGGTAAAGCCGGTGGGAGGCTCAGCAGGCCAGGAGGCCCAAGGACAGGACTTG
CGACCTTGAAGCCAAAGGAATCTCACTTGTGGGGCTCCTGTGCTGCTCTGCTGCTCTCAGAGCCATCTGGAT
GAGTGTCCCGACACCTCTCGGATGCAGGGCAGGACCACCCAGCTGGTCAGACTCTGATGTTGGGTAGCTGGCCT
CTGTGGGGATTGTAAGTGCCCTGAGGCGCTCTGTACTAGAACTGCTCTTAATAATAACGGTGATTATTGGTTGC
TGC

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FIGURE 4936A

CGGAGGAGGACGCGAGCCCCCTTGCGGGCGGTTCATCACAGCCAGCCTCGGGGCTGCCACAGCGCTTGCGCCTGT
GCGCCCTCGGTCCCCGCGTCCACTGAGCGCCGCGCTCGGGGATGGGGCCCGGCCGCGCCCCCGCGCCCTGGC
CTCGTCACCTGCTGCGCTGCGTCCCTGCTCCTCGGGTGCCTGCACCTCGGCCGTCCCGCGCCCCCTGGGGACGCCG
CCCTCCCGGAACCAACGTCTTCTCATCTTCAGCCATGGACTGCAGGGCTGCCTGGAGGCCAGGGCGGGCAGG
TCAGAGTACCCCGGGCTTGCAATACCAGCCTCCCTGCCAGCGCTGGAAGTGGGTCTCCCGAAACCGCTATTCA
ACCTGGGTACCATGCAGTGCCTGGGCACAGGCTGGCCAGGCACCAACACCACGGCCTCCCTGGGCATGTATGAGT
GTGACCGGGAAGCACTGAATCTTCGCTGGCATTGTCGTACACTGGGTGACCAGCTGTCTTGTCTCTGGGGGCC
GCACCAGCAACATATCCAAGCCTGGCACCCCTTGAGCGTGGTGACCAGACCCGAGTGGCCAGTGGCGCATCTACG
GCAGCGAGGAGGACCTATGTGCTCTGCCCTACCACGAGGTCTACACCATCCAGGGAACTCCCACGGAAAGCCGT
GCACCATCCCCCTTCAAATATGACAACCACTGGTTCCACGGCTGCACCAGCACGGGCCGCGAGGATGGTCACCTGT
GGTGTGCCACCACCCAGGACTACGGCAAAGACGAGCGCTGGGGCTTCTGCCCCATCAAGAGTAACGACTGCGAGA
CCTTCTGGGACAAGGACCAGCTGACTGACAGCTGCTACCAGTTAACTTCCAGTCCACGCTGTCTGTGGAGGGAGG
CCTGGGCCAGCTGCGAGCAGCAGGGTGGGATCTGCTGAGCATCACGGAGATCCACGAGCAGACCTACATCAACG
GCCTCCTACTGGGTACAGTCCACCCTGTGGATCGGCTTGAATGACTTGGACACGAGCGGAGGCTGGCAGTGGT
CGGACAACTCGCCCCCAAGTACCTCAACTGGGAGAGTGACCAGCCGGACAACCCAGTGAGGAGAACTGTGGAG
TGATCCGCACTGAGTCTCGGGCGGTGGCAGAACCGTGACTGCAGCATCGCGCTGCCCTATGTGTGCAAGAAGA
AGCCCAACGCCACGGCCGAGCCACCCCTCCAGACAGGTGGGCCAATGTGAAGGTGGAGTGGAGCCGAGCTGGC
AGCCCTTCCAGGGCCACTGCTACCGCTGCAGGCCGAGAAGCGCAGCTGGCAGGAGTCCAAGAAGGCATGTCTAC
GGGGCGGTGGCGACCTGGTCAGCATCCACAGCATGGCGGAGCTGGAATTCATCACCAGCAGATCAAGCAAGAGG
TGGAGGAGCTGTGGATCGGCCCTCAACGATTTGAACTGCAGATGAATTTTGAAGTGGTCTGACGGGAGCCTTGTGA
GCTTACCCACTGGCACCCCTTTGAGCCCAACAACCTCCGGGACAGTCTGGAGGACTGTGTACCATCTGGGGCC
CGGAAGGCCGCTGGAACGACAGTCCCTGTAACCACTGCTTGGCATCCATCTGCAAGAAGGCAGGCCAGCTGAGCC
AGGGGGCCGCGGAGGAGGACCATGGCTGCCGGAAGGGTTGGACGTGGCACAGCCCATCCTGCTACTGGCTGGGAG
AAGACCAAGTGACCTACAGTGAGGCCCGGCGCTGTGCACTGACCATGGCTCTCAGCTGGTCACCATCACCACA
GGTTGAGCAGGCCTTCGTGAGCAGCTCATCTACAACCTGGGAGGGCGAGTACTTCTGGACGGCCCTGCAGGACC
TCAACAGCACCGGCTCCTTCTTCTGGCTCAGTGGGGATGAAGTCATGTACACCCACTGGAACCGGGACCAGCCCG
GGTACAGCCGTGGGGGCTGCGTGGCGCTGGCCACTGGCAGCGCCATGGGGCTGTGGGAGGTGAAGAATGTACCT
CGTTCCGGGCGCGCTACATCTGCCGGCAGAGCCTGGGCACTCCAGTGACGCCGGAGCTGCCGGGGCCAGATCCCA
CGCCAGCCTCACTGGCTCCTGTCCCCAGGGCTGGGCCTCGGACACCAAACCTCCGGTATTGCTATAAGGTGTTCA
GCTCAGAGCGGCTGCAGGACAAGAAGAGCTGGGTCCAGGCCAGGGGGCTGCCAGGAGCTGGGGGCCAGCTGC
TGAGCCTGGCCAGCTACGAGGAGGAGCACTTTGTGGCCAACATGCTCAACAAGATCTTCGGTGAATCAGAACCCG
AGATCCACGAGCAGCACTGGTTCTGGATCGGCCTGAACCGTCGGGATCCAGAGGGGGTCAAGTTGGCGCTGGA
GCGACGGCGTAGGGTTCTCTTACCACAATTTGACCGGAGCCGGCACGACGACGACATCCGAGGCTGTGCGG
TGCTGGACCTGGCCTCCCTGCAGTGGGTGGCCATGCAGTGCGACACACAGCTGGACTGGATCTGCAAGATCCCCA
GAGGTACGGACGTGCGGGAGCCCCGACGACAGCCCTCAAGGCCGACGGGAATGGCTGCGCTTCCAGGAGGCCGAGT
ACAAGTTCTTTGAGCACCCTCCACGTGGGCGCAGGCGCAGCGCATCTGCAGTGGTTCCAGGCCGAGCTGACCT
CCGTGCACAGCCAGGCAGAGCTAGACTTCCCTGAGCCACAACCTTGCAAGTGTCTCCCGGGCCAGGAGCAGCACT
GGTGGATCGGCCTGCACACCTCTGAGAGCGATGGGCGCTTCAGATGGACAGATGGTTCCATTATAAACTTCATCT
CCTGGGCACCAGGCAAACCTCGGCCTGTGCGCAAGGACAAGAAGTGCCTGTACATGACAGCCAGCCGAGAGGACT
GGGGGGACCAGAGGTGCCTGACAGCCTTGCCCTACATCTGCAAGCGCAGCAACGTCACCAAGAAACGCAGCCCC
CAGACCTGCCAACTACAGCCCTGGGGGGCTGCCCTCTGACTGGATCCAGTTCCTCAACAAGTGTTCAGGTFCC
AGGGCCAGGAACCCAGAGCCGGGTGAAGTGGTCAGAGGCACAGTTCTCCTGTGAACAGCAAGAGGCCAGCTGG
TCACCATCACAACCCCTTAGAGCAAGCAATTCATCACAGCCAGCCTGCCCAATGTGACCTTTGACCTTTGGATTG
GCCTCCATGCCTCGCAGAGGGACTTCCAGTGGGTGGAGCAGGAGCCTTTGATGTATGCCAACTGGGCACCTGGGG
AGCCCTCTGGCCCTAGCCCTGCTCCAGTGGCAACAAACCGACCAGCTGTGCGGTGGTCTGACAGCCCCCTCAG
CCCACTTCACTGGCCGCTGGGACGATCGGAGCTGCACGGAGGAGACCCATGGCTTCATCTGCCAGAAGGGCACGG
ACCCCTCCCTGAGCCCGTCCCCAGCAGCGCTGCCCCCGCCCCGGGCACTGAGCTCTCTACCTCAACGGCACCT
TCCGGCTGCTTCAGAAGCCGCTGCGCTGGCACGATGCCCTCCTGCTGTGTGAGAGCCACAATGCCAGCCTGGCCT

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FIGURE 4936B

ACGTGCCCCGACCCCTACACCCAGGCCTTCCTCACGCAGGCTGCCCCAGGGCTGCGCACGCCGCTCTGGATTGGGC
TGGCTGGCGAGGAGGGCTCTCGGCGGTACTCCTGGGTCTCAGAGGAGCCGCTGAACTACGTGGGCTGGCAGGACG
GGGAGCCGCAGCAGCCGGGGGGCTGTACCTACGTAGATGTGGACGGGGCCTGGCGCACCACCAGCTGTGACACCA
AGCTGCAGGGGGCTGTGTGTGGGGTTAGCAGTGGGCCCCCTCCTCCCCGAAGAATAAGCTACCATGGCAGCTGTC
CCCAGGGACTGGCAGACTCCGCGTGGATTCCCTTCCGGGAGCACTGCTATTCTTTCCACATGGAGCTGCTGCTGG
GCCACAAGGAGGCGCGACAGCGCTGCCAGAGAGCGGGTGGGGCCGCTCCTGTCTATCCTGGATGAGATGGAGAATG
TGTTTGTCTGGGAGCACCTGCAGAGCTATGAGGGCCAGAGTCGGGGCGCCTGGCTGGGCATGAACTTCAACCCCA
AAGGAGGCACTCTGGTCTGGCAGGACAACACAGCTGTGAACTACTCCAAGTGGGGGCCCCGGGCTTGGGCCCCA
GCATGCTGAGCCACAACAGCTGCTACTGGATTGAGAGCAACAGCGGGCTATGGCGCCCCGGCGCTTGACCAACA
TCACCATGGGTGTGCTGCTGCAAGCTTCCTCGTGTGAGCAGAGCAGCTTCTCCCCATCAGCGCTTCCAGAGAACC
CAGCGGCCCTGGTGGTGGTGTGATGGCGGTGCTGCTGCTCCTGGCCTTGCTGACCGCAGCCCTCATCCTTTACC
GGAGGCGCCAGAGCATCGAGCGCGGGGCTTTGAGGGTGCCCGCTACAGCCGACAGCTCCAGCCCCACCGAGG
CCACTGAGAAGAATCCTGGTGTGAGACATGAAATGAATGAGCAACAAGAAATAGAGCCAGGCGCGTGGGCAGG
GCCAGGGCGGGAGGAGCTGGGGAGCTGGGGCCCTGGGTGAGTCTGCCCCCCCACAGCTGCCTGTCCAGTTGGCC
TATGGAAGGGTGCCCTTGGGAGTCGCTGTTGGGAGCCGAGCTGGGCAGAGCCTGGGCTGGTGGGGTGCCACCCT
CCCACAAGGGCTGGGCTGAGACCCAGCTGAGTGCAGCGTGGCGTTTCCCTTTCTGGGGGGGCTGAGGTCTTTGTC
ACCTGGTCCGTGCCCCCACAGGAACCAGAGGTAGGATGGGAGGGGGAACGAGAGCCTCTTTCTCCCCAGAGCCC
CCGGCCAGGCCTGTTGATCCGCGCCCCAGGACCCCTTCTTTGAGAGCCCGAGGAGCCTCCCTGTCCCTCTG
GGCAGATCTGTTGTGCTCTCTTCCACCTGGCAGCCTCAGCTCTGTGCCCCCTACCCCTGCTCCCTCTCGCCCCCT
TCTCTCCACCCCTTCTTCTGAGCCGGGCCCCCTGGGGATTGGGGAGCCCTCTTGTTCCTGATGAGGGTCAGCTGA
GGGGGCTGAGCATCCATCACTCCTGTGCCTGCTGGGGTGGCTGTGGGGCGTGGCAGGAGGGGCCTAGGTGGGTTG
GGCCTGAGAACCAGGGCACGGGTGTGGTGTCTGCTGGGCTGGAGATAAGACTGGGGAGAGACACCCCAACCTCCC
AGGGTGGGAGCTGGGCCGGGCTGGGATGTCATCTCCTGCCGGGCGGGGAGGGCTCTGCCCCCTGGAAGAGTCCCC
TGTGGGGACCAAAATAAGTTCCCTAACATCTCCAGCTCCTGGCTCTGGTTTGGAGCAAGGGGAAGGGTTGCCAGA
GTCCTGGGGGCCCCAGAGGAGCAGGAGTCTGGGAGGGCCAGAGTTCACCCTCTAGTGGATCCAGGAGGAGCAGC
ACCCGAGCCCTGGAGTGGCCCCAGTACCCTTCCAAGAGGCCACAGTCCCAGCCAGGACAAAGTATGCGGCCCATCC
TGGTGCGACAGCGTGGGACAATGTGAACATGGACTCGAAGACATGGCCCTTTCTCTGTAGTTGATTTTTTAAATG
TGCCATTATTGTTTTT

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FIGURE 4937

MGPGRPAPAPWPRHLLRCVLLLGCLHLGRP GAPGDAALPEPNVFLIFSHGLQGCLQAQGGQVRVTPACNTSLPAQ
RWKQVSRNRLFNLTGMQCLGTGWPGTNTTASLGMIECDREALNLRWHCRTLGDLQSLLLGARTSNISKPGTLERG
DQTRSGQWRIYGSEEDLCALPYHEVYTIQGNSHGKPCITPFKYDNQWFHGCTSTGREDGHLWCATTQDYGKDERW
GFCPIKSNDCETFWDKDLTDSCYQFNQSTLSWREAWASCEQQGADLLSITEIHEQTYINGLLTGYSSTLWIGL
NDLDTSGGWQWSDNSPLKYLNWESDQPDNPSEENCGVIRTESSGGWQNRDCSIALPYVCKKKPNATAEPTPPDRW
ANVKECEPSWQPFQGHYRLQAEKRSWQESKKACLRGGGDLVSIHSMAELEFITKQIKQEVEELWIGLNDLKLQ
MNFESDGLSVSFTHWHPFEPNFRDSLED CVTIWGPEGRWNDSPCNQSLPSICKKAGQLSQGAAEEDHGCRKGW
TWHSPSCYWLGEDQVTYSEARRLCTDHGSQVLVTITNRFEQAFVSSLIYNWEGEYFWTALQDLNSTGSFFWLSGDE
VMYTHWNRDQPGYSRGGCVALATGSAMGLWEVKNTSFRARYICRQSLGTPVTPELPGPDPTPSLTGSCPGQGWAS
DTKLRYCYKVFSSERLQDKKSWVQAQGAQELGAQLLSLASYEEHFFVANMLNKIFGESEPEIHEQHFWIGLNR
RDPGGQSWRWSG VGF SYHNFDRSRHDDDDIRGCAVLDLASLQWVAMQCDTQLDWICKIPRGTDVREPDDSPQG
RREWLRFQEA EYKFFEHHSTWAQAQRIC TWFQAE LTVSHSQAELDFLSHNLQKFSRAQEQHWWIGLHTSESDGRF
RWDGSIINFISWAPGKPRPVGDKKCVYMTASREDWGDQRCLTALPYICKRSNVTKETQPPDLPTTALGGCPSD
WQFLNLCFQVQGE PQSRVKWSEAQFSCEQQEAQLVTITNPLEQAFITASLPNVTFDLWIGLHASQRDFQWVEQ
EPLMYANWAPGEPSPGSPAPSGNKPTSCAVVLHSPSAHFTGRWDDRSCTEETHGFICQKGTDP SLSPSPAALPPA
PGTELSYLN GTFRLLQKPLRWH DALLLCESHNASLAYVPDPTQAFLTQAARGLRTPLWIGLAGEEGSRRYSWVS
EEPLNYVGWQDGE PQPGGCTYVDVDGAWRTTSCDTKLQGA VCGVSSGPPPPRRISYHGSCPQGLADSAWIPFRE
HCYSFHMELLLGHKEARQRCQRAGGAVLSILDEMNENVVWEHLQSYEGQSRGAWLGMNFPKGGTLVWQDNTAVN
YSNWGPPGLGPSMLSHNSCYWIQSNSGLWRPGACTNITMGVVCKLPRAEQSSFS SPALPENPAALVVVLMVALLL
LALLTAALILYRRRQS IERGA FEGARYSRSSSSPTEATEKNILVSDMEMNEQQE

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FIGURE 4938

GGAGCCGCGCCGCATCTCAGGCGCAGTCTCTAGGGGCTGTGCGCATCCGTGGGGGGGACATGCGCATCTCAGGGG
GGCTGCTCGCATCTGGGGGTGCTGTGTGCATCTCGGGGGGGCTGTGCCCATCTAGCGGGGTGGCTGTGCGCATCT
GGAGGGGGCTGTGCGCAACCCGGGGGGGGTGTTCGCGCATCTAGCAGGGGCGGCTGTGCGCATTTCGGGGGGGG
CTGTGCATATCTGGGGGGACCGTGCTTATCTCCGGGGGCGGCTGTGCGCATCTTGAGGGGTGTGTACATCTCGGG
GGGCTGTGCGCATCTTGGGGGGCTGTGTGCATCCGCGGGGGCTGTGCGCATCTCGGGGTGCTGTGCGCTGCTCC
TCTGAGCTCTGCTCTTTCTTGAGCGTTTGCCTCAGCATGGAGGGCGGGGCCGCGGCAGCCACCCCCACAGCACT
GCCTTACTACGTGGCCTTCTCCCAGCTGCTGGGCCTGACCTTGGTGGCCATGACCGGCGCGTGGCTCGGGCTGTA
CCGAGGCGGCATTGCCTGGGAGAGCGACCTGCAGTTCAACGCGCACCCCTCTGCATGGTCATAGGCCTGATCTT
CCTGCAGGGAATGCCCTGCTGGTTTACCGTGTCTTCAGGAACGAAGCTAAACGCACCACCAAGGTCCTGCACGG
GCTGCTGCACATCTTTGCGCTCGTCATCGCCCTGGTTGGCTTGGTGGCGGTGTTCGACTACCACAGGAAGAAGGG
CTACGCTGACCTGTACAGCCTACACAGCTGGTGCGGGATCCTTGTCTTTGTCTGTACTTTGTGCACTGGCTGGT
GGGCTTCAGCTTCTTCTGTTCCCGGAGCTTCATTCTCCCTGCGGAGCCGCTACCGCCACAGCACATCTTCTT
TGGTGCTACCATCTTCTCTCTTCCGTGGGCACCGCCCTGCTGGGCCTGAAGGAGGCACTGCTGTTCAACCTCGG
GGCAAGTATAGCGCATTTGAGCCCCGAGGGTGTCTGGCCAACGTGCTGGGCCTGCTGCTGGCCTGCTTCGGTGG
GGCGGTGCTCTACATCTTGACCCGGGCCGACTGGAAGCGGCCTTCCAGGCGGAAGAGCAGGCCCTCTCCATGGA
CTTCAAGACGCTGACGGAGGGAGATAGCCCCGGCTCCAGTGATGCGCCCGCCGGCCCTGGGGGTTGCGGGGT
GTCTTCTTGCTGCCCCCTGCTGAGGCGTCTTCAGGACTGCAGGCTCCGGAGAGTGGCTCTGGCAGCAGGCGGGCG
CGTGGGTGCAGCTGCATCTGTTTGAGTGCTGCTTCTGGGGTGAGGTCTCCGCCTCCTCTGCTTCTCCTTTCTCC
GCTGCTATAGACCAGTTCATTGTGTGTGGCTCCCGTGTCTCTGTTGCCCCCTTCAGTGCAAGAGGCTTTGGGTAG
GACTTCGGGTGTTTCGGTCTGCTGCGCAGAGCACAGATCTTTAAAGAAGCGAGAGAGGAGGCCCCACCCTCCTGGC
AGCAGATGCCTGGGGCAAGGCCAGGGGAACTGGGGGGGCTCAGGGACAGGCCTGGAAAGGCCACGATGGCTGC
TGAATTCAAACAAGGAGTCCCTCCAGCCTGAATAACACGTGGCACAAATGGGCCCGGCCCTTTGGCAGAGGAGCAA
GTGATATGATGTGTAAAGTATGTTGGTGGTGAAAGCAAGGTTCCCCAGGAGAGGGGAGGGACTGGCCCCCTGGGAA
GCTCTGAGATGAGGCTGTGGCCCAGCTGTAGTCCTGACCTTCTCTTTTAAACCCTTTAGCCCTAGGATGGCTT
TGGTGGGAGAGGGGATAGAAGCCCATGACTTCAGACAGACTTTCTCTTGGCAGATGCAGGCGGGCCTCCTCCCAG
GCTGCTCCAGACATGGGGGTGGGGATGGGGGGCACCTTGACGCCCTTCTGCTGGGGCTCCCTCCTTGTAGCA
CCCCCTTGCGGCTCAGCTCTGGTTTCTCTCCAGGCTCACCCAGGCTCTGCTCAGGCTGGGAGGCAGAGGGCA
CAAACCTTATAATTTTTTAAATGAAAAACCGCTGCTGCTGGCTGTGGCTAGAGCCCCCTGGGGCTGCTGGAGCTG
CTGCCTCTGTTCTGGAGGACGAGCCTTCTCCTTATCTGCTGCCCATCTTTCCAGGAAGTCAGGATGGAGTCAGAA
CAACTACAGTCATCCCCGTGGTGTCTGCACATCACTCCAGCCCCATAAAGAGTGTATGTTAGCTGAGTCACCA
TTTGGCTTCGGCCTGGAAATAGTGTGATTAGAACAATGATCGTGTGCGAGGCCAGGAGATCAAGACCATCCTGAC
TAACAAACACAGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGTGGGCGCCTGTAG
TCCCAGCTACTTGGGAG

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FIGURE 4939

AGTATGTGTGGTTGGGGAATTCATGTGGAGGTCAGAGTGGGAAGCAGGTGTGAGAGGGTCCAGCAGAAGGAAACAT
GGCTGCCAAAGTGTTTTGAGTCCATTGGCAAGTTTGGCCTGGCCTTAGCTGTTGCAGGAGGCGTGGTGAACCTCTGC
CTTATATAATGTGGATGCTGGGCACAGAGCTGTCATCTTTGACCGATTCCGTGGAGTGCAGGACATTGTGGTAGG
GGAAGGGACTCATTTTTCTCATCCCGTGGGTACAGAAACCAATTATCTTTGACTGCCGTCTCGACCACGTAATGT
GCCAGTCATCACTGGTAGCAAAGATTTACAGAATGTCAACATCACACTGCGCATCCTCTCCGGCCTGTCGCCAG
CCAGCTTCCTCGCATCTTCACCAGCATCGGAGAGGACTATGATGAGCGTGTGCTGCCGTCCATCACAACCTGAGAT
CCTCAAGTCAGTGGTGGCTCGCTTTGATGCTGGAGAACTAATCACCAGAGAGAGCTGGTCTCCAGGCAGGTGAG
CGACGACCTTACAGAGCGAGCCGCCACCTTTGGGCTCATCTGGATGACGTGTCTTGACACATCTGACCTTCGG
GAAGGAGTTCACAGAAGCGGTGGAAGCCAAACAGGTGGCTCAGCAGGAAGCAGAGAGGGCCAGATTTGTGGTGGA
AAAGGCTGAGCAACAGAAAAAGGCGGCCATCATCTCTGCTGAGGGCGACTCCAAGGCAGCTGAGCTGATTGCCAA
CTCACTGGCCACTGCAGGGGATGGCCTGATCGAGCTGCGCAAGCTGGAAGCTGCAGAGGACATCGCGTACCAGCT
CTCACGCTCTCGGAACATCACCTACCTGCCAGCGGGGAGTCCGTGCTCCTCCAGCTGCCCCAGTGAGGGGGCCAC
CCTGCCTGCACCTCCGCGGGCTGACTGGGCCACAGCCCCGATGATTCTTAACACAGCCTTCCTTCTGCTCCACC
CCAGAAATCACTGTGAAATTTTCATGATTGGCTTAAAGTGAAGGAAATAAAAGGTAAATCACTTCAGATCTCTAAT
TAGTCTATCAAATGAACTCTTTCATTCTTCTCACATCCATCTACTTTTTATCCACCTCCCTACCAAAAATTGC
CAAGTGCTATGCAAACCAGCTTTAGGTCCCAATTCGGGGCCTGCTGGAGTTCCGGCCTGGGCACCAGCATTG
CAGCACGCAGGCGGGGCAGTATGTGATGGACTGGGGAGCACAGGTGTCTGCCTAGATCCACGTGTGGCCTCCGTC
CTGTCACTGATGGAAGGTTTGGCGATGAGGGCATGTGCGGCTGAACTGAGAAGGCAGGCCTCCGTCTTCCCAGCG
GTTCTGTGTCAGATGCTGCTGAAGAGAGGTGCCGGGAGGGGCAGAGAGGAAGTGGTCTGTCTGTTACCATAAGT
CTGATTCTCTTTAACTGTGTGACCAGCGGAAACAGGTGTGTGTGAACTGGGCACAGATTGAAGAATCTGCCCTG
TTGAGGTGGTGGGCCTGACTGTTGCCCCCAGGGTCTAAACTTGGATGGACTTGTATAGTGAGAGAGGAGGC
CTGGACCGAGATGTGAGTCTGTGTAAGACTTCCTCTCTACCCCCACCTTGGTCCCTCTCAGATACCCAGTGGA
ATTCCAACCTGAAGGATTGCATCCTGCTGGGGCTGAACATGCCTGCCAAAGACGTGTCCGACCTACGTTCTTGGC
CCCCTCGTTTCAGAGACTGCCCTTCTCACGGGCTCTATGCCTGCACTGGGAAGGAAACAAATGTGTATAAACTGCT
GTCAATAAATGACACCCAGACCTTCC

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FIGURE 4940

MAAKVFESIGKFGALAVAGGVVNSALYNVDAGHRAVIFDRFRGVQDIVVGEGTHFLIPWVQKPIIFDCRSRPRN
VPVITGSKDLQNVNITLRILFRPVASQLPRIFTSIGEDYDERVLPSITTEILKSVVARFDAGELITQRELVSRQV
SDDLTERAATFGLILDDVSLTHLTFGKEFTEAVEAKQVAQQEAERARFVVEKAEQQKAAIISAEGDSKAAELIA
NSLATAGDGLIELRKLEAAEDIAYQLSRSRNITYLPAGQSVLLQLPQ

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FIGURE 4941

AGATCGATCTAAGATGGCGACCGTCGAACCGGAAACCACCCCTACTCCTAATCCCCCGACTACAGAAAAGGAGAA
AACGGAATCTAATCAGGAGGTTGCTAACCCAGAACACTATATTAAACATCCCCCTACAGAACAGATGGGCACTCTG
GTTTTTTAAAAATGATAAAAGCAAACTTGGCAAGCAAACCTTGTGGCTGATCTCCAAGTTTGATACTGTTGAAGA
CTTTTGGGCTCTGTACAACCATATCCAGTTGTCTAGTAATTTAATGCCTGGCTGTGACTACTCACTTTTTAAGGA
TGGTATTGAGCCTATGTGGGAAGATGAGAAAAACAAACGGGGAGGACGATGGCTAATTACATTGAACAAACAGCA
GAGACGAAGTGACCTCGATCGCTTTTGGCTAGAGACACTTCTGTGCCTTATTGGAGAATCTTTTGATGACTACAG
TGATGATGTATGTGGCGCTGTTGTTAATGTTAGAGCTAAAGGTGATAAGATAGCAATATGGACTACTGAATGTGA
AAACAGAGAAGCTGTTACACATATAGGGAGGGTATACAAGGAAAGGTTAGGACTTCCTCCAAAGATAGTGATTGG
TTATCAGTCCCACGCAGACACAGCTACTAAGAGCGGCTCCACCCTAAAAATAGGTTTGTGTTTGAAGAAGACAC
CTTCTGAGTATTCTCATAGGAGACTGCGTCAAGCAATCGAGATTTGGGAGCTGAACCAAAGCCTCTTCAAAAAGC
AGAGTGGACTGCATTTAAATTTGATTTCCATCTAAATGTTACTCAGATATAAGAGAAGTCTCATTTCGCCCTTTGTC
TTGTACTTCTGTGTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCTAGAGTTTACACTATCCCAATCAAAGAA
TTACAGTACACATCTCCAGAATCCATAAATGTGTTCTGGCCCACTCTGTAATAGTTTCAGTAGAATTACCATTAA
TTACATACAGATTTTACCTATCCACAATAGTCAGAAAAACAACCTTGGCATTCTTATACTTTACAGGAAAAAAAT
CTGTTGTTCCATTTTATGCAGAAGCATATTTGCTGGTTTGAAAGATTATGATGCATACAGTTTCTAGCAATTT
TCTTTGTTTCTTTTACAGCATTGCTTTGCTGTACTCTTGCTGATGGCTGCTAGATTTTAAATTTATTTGTTTCC
CTACTTGATAATATTAGTGATTCTGATTTCAGTTTTTCATTTGTTTTGCTTTTGTTTTTTCTCATGTAACATT
GGTGAAGGATCCAGGAATATGACACAAAGGTGGAATAAACATTAAATTTTGTGCATTCTTTGGTAATTTTTTTTGT
TTTTTGTAACCTACAAAGCTTTGCTACAAATTTATGCATTTTATTCAAATCAGTGATCTATGTTTGTGTGATTTC
TAAACATAATTGTGGATTATAAAAAATGTAACATCATAATTACATTCCTAACTAGAATTAGTATGTCTGTTTTTG
TATCTTTATGCTGTATTTTAACTTTGTATTACTTAGGTTATTTTGCTTTGGTTAAAAATGGCTCAAGTAGAAA
AGCAGTCCCATTTCATATTAAACAGTGTACAAAACCTGTAAATAAAATGTGTACAGTGAATTGTCTTT

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FIGURE 4942

AGATCGATCTAAGATGGCGACCGTCGAACAGATGGGCACCTCTGGTTTTTTAAAAATGATAAAAGCAAACTTGGC
AAGCAAACCTTGTGGCTGATCTCCAAGTTTGATACTGTTGAAGACTTTTGGGCTCTGTACAACCATATCCAGTTGT
CTAGTAATTTAATGCCTGGCTGTGACTACTCACTTTTTAAGGATGGTATTGAGCCTATGTGGGAAGATGAGAAAA
ACAAACGGGGAGGACGATGGCTAATTACATTGAACAAACAGCAGAGACGAAGTGACCTCGATCGCTTTTGGCTAG
AGACACTTCTGTGCCTTATTGGAGAATCTTTTGATGACTACAGTGATGATGTATGTGGCGCTGTTGTTAATGTTA
GAGCTAAAGGTGATAAGATAGCAATATGGACTACTGAATGTGAAAACAGAGAAGCTGTTACACATATAGGGAGGG
TATACAAGGAAAGGTTAGGACTTCCTCCAAAGATAGTGATTGGTTATCAGTCCCACGCAGACACAGCTACTAAGA
GCGGCTCCACCCTAAAAATAGGTTTGTGTTTAAGAAGACACCTTCTGAGTATTCTCATAGGAGACTGCGTCAA
GCAATCGAGATTTGGGAGCTGAACCAAAGCCTCTTCAAAAAGCAGAGTGGACTGCATTTAAATTTGATTTCATC
TAAATGTTACTCAGATATAAGAGAAG

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FIGURE 4943A

GCCGAGCACCGCGCACCGCGTCATGGGGGCCGCTCGGGGCCCGGGGGCGGGGCTGCTGCTGCCGCTGCCGCT
GCTGTTGCTGCTXGCCGCCGAGCCCGCCCTGGCGTTGXGXACCCCGGGCTGCAGCCXGAAACTTTTCTXGCTG
ACGAGGCCGGGGCGCAGCTCTTCGCGCAGAGCTACAACCTCCAGCGCCGAACAGGTGCTGTTCCXAGAGCGTGGCC
GCCAGCTGGGGCGCACGACACCAACATCACC GCGGAGAATGXXXXXXXGAGGAAGCAGCCCTGCTCAGCCAG
GAGTTXGCGXGGAGGCCTXGGGGCAGXAAGGCCAAXGGAGCTGTATGAACCGATCTGGCAGAACTTCACGGXACC
XCGCAXGCTGCGCAGGATCATCGGAGCTGTGCGCACCTGGGCTCTGCCAACXCTGCCCCCTGGCTAAGCGGCAGC
AGTACAACGCCCTGCTAAGCAACATGAGCAGGATCTACTCCACCGCCAAGGTCTGCCTCCCCAACAAAGACTGCCA
CCTGCTGGTCCCTGGACCCAGATCTCACCAACATCCTGGCTTCCTCGCGAACTACGXCCATGCTCCTGTTTGCT
GGGAGGGCTGGCACAATGCTGCGGGCATCCCGCTGAAACCGCTGTACGAGGATTTCACTGCCCTCAGCAATGAAG
CCTACAAGCAGGACGGCTTCACAGACACGGGGGCTACTGGCGCTCCTGGTACAACCTCCCCACCTTCGAGGACG
ATCTGGAACACCTCTACCAACAGCTAGAGCCCCCTTACCTGAACCTCCATGCCCTTCGTCGCCCGCGCACTGCATC
GCCGATACGGAGACAGATACATCAACCTCAGGGGACCCATCCCTGCTCATCTGCTGGGAGACATGTGGGCCCCAGA
GCTGGGAAAACATCTACGACATGGTGGTGCCTTTCCAGACAAGCCCAACCTCGATGTCACCACTACTATGCTGC
AGCAGGGCTGGAACGCCACGCACATGTTCCGGGTGGCAGAGGAGTCTTCACCTCCCTGGAGCTCTCCCCATGC
CTCCCGAGTTCTGGGAAGGGTCGATGCTGGAGAAGCCGGCCGACGGGCGGGAAGTGGTGTGCCACGCCTCGGCTT
GGGACTTCTACAACAGGAAAGACTTCAGGATCAAGCAGTGCACACGGGTACGATGGACCAGCTCTCCACAGTGC
ACCATGAGATGGGCCATATACAGTACTACCTGCAGTACAAGGATCTGCCCGTCTCCCTGCGTCGGGGGGCCAAACC
CCGGCTTCCATGAGGCCATTGGGGACGTGCTGGCGCTCTCGGTCTCCACTCCTGAACATCTGCACAAAATCGGCC
TGCTGGACCGTGTACCAATGACACGGAAAGTGACATCAATTACTTGCTAAAAATGGCACTGGAAAAAATTGCCT
TCCTGCCCTTTGGCTACTTGGTGGACCACTGGCGCTGGGGGGTCTTTAGTGGGCGTACCCCCCTTTCCGCTACA
ACTTCGACTGGTGGTATCTTCGAACCAAGTATCAGGGGATCTGTCTCTCTGTTACCCGAAACGAAACCCACTTTG
ATGCTGGAGCTAAGTTTTCATGTTCCAAATGTGACACCATACATCAGGTACTTTGTGAGTTTTGTCTGCAGTTCC
AGTTCCATGAAGCCCTGTGCAAGGAGGCAGGCTATGAGGGCCCCACTGCACCACTGTGACATCTACCGGTCCACCA
AGGCAGGGGCCAAGCTCCGGAAGGTGCTGCAGGCTGGCTCCTCCAGGCCCTGGCAGGAGGTGCTGAAGGACATGG
TCGGCTTAGATGCCCTGGATGCCAGCCGCTGCTCAAGTACTTCCAGCCAGTCACCCAGTGGCTGCAGGAGCAGA
ACCAGCAGAACGGCGAGGTCTGGGCTGGCCGAGTACCAGTGGCACCCGCCGTTGCCTGACAACTACCCGGAGG
GCATAGACCTGGTACTGATGAGGTGAGGCCAGCAAGTTTGTGGAGGAATATGACCGGACATCCAGGTGGTGT
GGAACGAGTATGCCGAGGCCAACTGGAAC TACAACCAACATCACCACAGAGACCAGCAAGATTCTGCTGCAGA
AGAACATGCAAAATAGCCAACCAACCCCTGAAGTACGGCACCCAGGCCAGGAAGTTTGATGTGAACCAAGTTGCAGA
ACACCACTATCAAGCGGATCATAAAGAAGTTTACAGACCTAGAACGGGCAGCACTGCCTGCCAGGAGCTGGAGG
AGTACAACAAGATCCTGTTGGATATGGAACCACTACAGCGTGGCCACTGTGTGCCACCCGAATGGCAGCTGCC
TGCACTCGAGCCAGATCTGACGAATGTGATGGCCACGTCCCGGAAATATGAAGACCTGTTATGGGCATGGGAGG
GCTGGCGAGACAAGGCGGGGAGAGCCATCCTCCAGTTTTACCCGAAATACGTGGAAC TACAACCAAGCTGCC
GGCTCAATGGCTATGTAGATGCAGGGGACTCGTGGAGGTCTATGTACGAGACACCATCCCTGGAGCAAGACCTGG
AGCGGCTCTTCCAGGAGCTGCAGCCACTCTACCTCAACCTGCATGCCCTACGTGCGCGGGCCCTGCACCGTCACT
ACGGGGCCCCAGCACATCAACCTGGAGGGGCCCCATTCTGCTCACTGCTGGGGAACATGTGGGCGCAGACCTGGT
CCAACATCTATGACTTGGTGGTGCCCTTCCCTTCAGCCCCCTCGATGGACACCACAGAGGCTATGCTAAAGCAGG
GCTGGACGCXCCAGGAGGATGTTTAAGGAGGCTGATGATTTCTTCACCTXCCCTGGGGCTGCTGCCCGTGCCTCC
TGAGTTCTGGAACAAGTCGATGCTGGAGAAGCCAACCGACGGGCGGGAGGTGGTCTGCCACGCCTCGGCCTGGGA
CTTCTACAACCGCAAGGACTTCCGGATCAAGCAGTGCACCACCGTGAACCTGGAGGACCTGGTAGTGGCCCCACCA
CGAAATGGGCCACATCCAGTATTTTCATGCAGTACAAAGACTTACCTGTGGCCTTGAGGGAGGGTGCCAACCCCGG
CTTCCATGAGGCCATTGGGGACGTGCTAGCCCTCTCAGTGTCTACGCCCAAGCACCTGCACAGTCTCAACCTGCT
GAGCAGTGAGGGTGGCAGCGACGAGCATGACATCAACTTTCTGATGAAGATGGCCCTTGACAAGATCGCCTTTAT
CCCCTTCACTACCTCGTCGATCAGTGGCGCTGGAGGGTATTTGATGGAAGCATCACCAGGAGAAGTATAACCA
GGAGTGGTGGAGCCTCAGGCTGAAGTACCAGGGCCTTGCCCCCAGTGCCAGGACTCAAGGTGACTTTGACCC
AGGGGCCAAGTTCCACATTCTTCTAGCGTGCCTTACATCAGGTACTTTGTGAGCTTCAATCAGTTCCAGTT
CCACGAGGCACTGTGCCAGGCACTGGCCACACGGGCCCCCTGCACAAGTGTGACATCTACCAGTCCAAGGAGGC
CGGGCAGCGCCTGGCGACCGCCATGAAGCTGGGCTTCAGXTAGGCCGTGGCCGAXAGCCATGCAGCTGATCACG

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FIGURE 4943B

XXGGCCAGCCCXAACATGAGCGCCTCGGCCATGTTGAGCTACTTCAAGCCGCTGCTGGAXCTGGCTCCGCACGGA
GAACGAGCTGCATGGGGAGAAGCTGGGCTGGCCGCAGTACAACTGGACGXCCGAACCTCCGCTCGCTCAGAAGGGC
CCCTCCCAGACAGCGGCCGCGTCAGCTTXCCTGGGCCTGGACCTGGATGCGCAGGAGGCCC GCGTGGGCXCAGXT
GGCTGCTGCTCTTCCTGGGCATCGCCCTGXCTGGTAGCCACCCTGGGCCTCAGCCAGCGGCTXCTTXCAGCATCC
GCCACCGCAGCCTCCACCGGCACCTCCACGGGCCCCAGTTCGGCTCCGAGGTGGAGCTGAGACACTCCTGAGGTG
ACCCGGCTGGGTGCGCCCTGCCCAAGGGCCTCCACCCAGAGACTGGGATGGGAACACTGGTGGGCAGCTGAGG

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FIGURE 4944

TGACCCAGGACTCTTTGTTTATTGCTGTGATTTTTCTTCCACAGCTATAGAACTGGTCCAGACAAATTCAGAATA
TGATCCTTCTCGGTGTTTTGCCTTTGTTTCACGACCTGTGTGATGAAGAGAAGAGTTACCCAGTGCCCAAGGGCAG
TCTTGATATTATCATTCTCATATTTGTTCTTTCAGCAATTGTTCCAGACAAGATGCAGAAGGCTATCAACAGGCT
GAGCAGGCTTCTGAAACCTGGCGGGATGATGCTTCTGCGAGATTACGGCCGCTATGACATGGCTCAGCTTCGGTT
TAAAAAAGGTCAGTGTCTATCTGGAAATTTCTACGTGAGAGGTGATGGAACCAGAGTTTACTTCTTCACACAAGA
GGAACCTGGACACGCTTTTCACCACTGCTGGACTGGAAAAAGTTTCAGAACCTGGTGGATCGCCGACTGCAGGTGAA
CCGAGGAAAGCAACTGACAATGTACCGGGTTTGGATTGAGTCAAATACTGCAAGCCCCCTTCTGTCCAGCACCAG
CTGAGAGGCACCTGCTGCCAACACGATGCAAGCCCCATTGTGTTTTCCGGGCTTTTTTAAAAAAAATTGTAGCAC
TGGGCGTGGTGATGCCTGTAATCCCAGCCACTCAGGAGGCTGAGGCGGGGAGGATCCATTGAGCCCAGCAGTCC
AACCTGGGCAAAATAGTGAGAGACCCCTGTATCTGAAAGTAATAATAAAAAATAAAAAATATAAATGAGGTCTCGTT
GATGTTGGACAATTCAAGAATTCAGACTTGAACCTTAAACCTAGGAAAAGTTACTTTGTATCAGGATTCTAACAA
TTATGCTTCATATTTGTGAAGTCCTTTAAAAACATAATTTTCTCAAGTTCTTTCTTTGAGATCTCAATCTGTCTTA
GCATTTTGTAACTAATAACTGAAATTTTATTCAAAGGAATTGTAAACCTTAAACCACCAATTTATTTCCATGTGA
AAAAGTGTTACATATGACAAGTGTTTTTTGACTGTAATTGCGTTAAATCTTTTGAGAATGTAAATGCCGGGCTAG
GCAATTGCAGTTAATACATACAGAGGTTAGTGAAGGGCTTATTAAGTTGTAGGGGAAGCAAGCTGGGAAGAATCA
GATCAGATATTTTCCTGAC

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FIGURE 4945

AGGTTTCAGCTTGTTGGTTTAGATGAGGAGAGTTTCAGAGTTTATTTGCAGAAACACCTTTGACCACCCATACCCCA
CCACAAAGCTCATGTGGATCCCTGACACAAAAGGCGTCTATCCAGACCTACTGGCAACAAGCGGTGACTATCTCC
GTGTGTGGAGGGTTGGTGAAACAGAGACCAGGCTGGAGTGTTTGCTAAACAATAATAAGAACTCTGATTTCTGTG
CTCCCCTGACCTCCTTTGACTGGAATGAGGTGGATCCTTATCTTTTAGGTACCTCAAGCATTGATACGACATGCA
CCATCTGGGGGCTGGAGACAGGGCAGGTGTTAGGGCGAGTGAATCTCGTGTCTGGCCACGTGAAGACCCAGCTGA
TCGCCCATGACAAAGAGGTCTATGATATTGCATTTAGCCGGGCGGGGGTGGCAGGGACATGTTTGCCTCTGTGG
GTGCTGATGGCTCGGTGCGGATGTTTGACCTCCGCCATCTAGAACACAGCACCATCATTACGAAGACCCACAGC
ATCACCCACTGCTTCGCCTCTGCTGGAACAAGCAGGACCCTAACTACCTGGCCACCATGGCCATGGATGGAATGG
AGGTGGTGATTCTAGATGTCCGGGTTCCCTGCACACCTGTCGCCAGGTAAACAACCATCGAGCATGTGTCAATG
GCATTGCTTGGGCCCCACATTATCCTGCCACATCTGCACTGCAGCGGATGACCACCAGGCTCTCATCTGGGACA
TCCAGCAAATGCCCCGAGCCATTGAGGACCCTATCCTGGCCTACACAGCTGAAGGAGAGATCAACAATGTGCAGT
GGGCATCAACTCAGCCCGACTGGATCGCCATCTGCTACAACAAGTGCCTGGAGATACTCAGAGTGTAGTGTGGT
GGCGCTGTGCCCACGAGGCAGGGGCTTTTGTATTTCTGCTCTGCCCCACCCCCAAAGTAAGAAGAAACATGTT
TCCAGTGGCCAGTATGTCTTTCATTGCTTTGCACCCACTGTTACCAGAAGCTGCTCTAGGAGTTCCTGGCCAGTC
ACCCCATCGCCCTCTGTGGCAGACTCAGTGCTGTGTGGCGCTCCTCAGCCCAGGGCTGAGTTTTAAGATTTTCT
CTCCTTTCCTCTTCTCCTTTGGTTCCTCAATTAA

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FIGURE 4946

ATGAGTGGCTCCTTCGATCGCAAGCTCAGCAGCATCCTCACCGACATCTCCAGCTCCCTTAGCTGCCATGCGGGC
TCCAAGGACTCGCCTACCC TGCCGAGTCTTCTGTCACTGACCTGGGCTACTACAGCGCTCCCCAGCACGATTAC
TACTCGGGCCAGCCCTATGGCCAGACGGTGAACCCCTACACCTACCACCACCAATTCAATCTCAATGGGCTTGCA
GGCACGGGCGCTTACTCGCCCAAGTCGGAATATACCTACGGAGCCTCCTACCGGCAATACGGGGCGTATCGGGAG
CAGCCGCTGCCAGCCCAGGACCCAGTGTCGGTGAAGGAGGAGCCGGAAGCAGAGGTGCGCATGGTGAATGGGAAG
CCCAAGAAGGTCCGAAAGCCGCGTACAATCTACTCCAGCTACCAGCTGGCCGCCCTGCAGCGCCGCTTCCAGAAG
GCCCAGTACCTGGCGCTGCCCCGAGCGCGCCGAGCTGGCCGCGCAGCTGGGCCTCACGCAGACACAGGTGAAAATC
TGGTTCCAGAACCGCGTTCCAAGTTCAAGAACTCTACAAGAACGGGGAGGTGCCGCTGGAGCACAGTCCCAAT
AACAGTGATTCCATGGCCTGCAACTCACCACCATCACCCGCCCTCTGGGACACCTCTTCCCCTCCACTCCGGCC
CCTGCCCCGAGTCAGCTGCCCCCGCGCTCCCATACAGTGCCTCCCCCAGCTACCTGGACGACCCACCAACTCC
TGGTATCACGCACAGAACCTGAGTGGACCCCACTTACAGCAGCAGCCGCCTCAGCCAGCCACCCTGCACCATGCC
TCTCCGGGGCCCCCGCCCAACCTGGGGCTGTGTACTTGA

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FIGURE 4947

MSGSFDRKLSSILTDISSLSCHAGSKDSPTLPESVTDLGYYSA PQHDYYSGQPYGQTVNPTYHHQFNGLA
GTGAYSPKSEYTYGASYRQYGAYREQPLPAQDPVSVKEEPEAEVRMVNGPKPKVRKPRTIYSSYQLAALQRRFQK
AQYLALPERAELAAQLGLTQTQVKIWFQNRRSKFKKLYKNGEVPLEHSPNNSDSMACNSPPSPALWDTSSHSTPA
PARSQLPPPLPYASPSYLDPTNSWYHAQNLSGPHLQQQPPQPATLHHASPGPPPNPGAVY

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FIGURE 4948

CCCGTCACCAAGCTGGGCGCTTGGTCAAGGAAATGAAGATCAAATCCCTGGAGGAGATCTATCCCTTCTCCCTG
CCCATTAAAGGTATCTGAGATCATTGACTTTTTCTGGGGGCCTCTCTTAAGGACGAGGTTTTGAAGATTATGTCG
GTGCAGAAGCAGACCCGCTGCGGCTCTGTGCTGGTGCGCCTCATCCCTGCACCCAGGGGCACTGGCATTGTCTCC
GCACCTGTGCCCCAAGAAGCTGCTCATGATAGCTGGTATCGATGACTGCTACACCTCAGCCCCGGGGCTGCACTGCC
ACCCTGGGCAACTTCGCCAAGGCCACCTTTGACGCCATCTCTAAGACCTACAGCTACCTGACCCCCGACCTCTGG
AAGGAGACTGTATTTACCAAGTCTCCCTGTCAGGAATTCAGTACACCTCGTCAAGACCCACACCAGAGTCTTC
GTGCAGCAGACCCAGGCTCCAGCTGTGGCTACAACATAGGGTTTTTATACAAGAAAAATAAAGTGAATTAAGC

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FIGURE 4949

MKIKSLEEIYPFSLPIKVSEIIDFFLGASLKDEVLKIMSVQKQTRCGSVLVRLIPAPRG TGIVSAPVPPKLLMIA
GIDDCYTSARGCTATLGNFAKATFDAISKTYSLTPDLWKETVFTKSPCQEFTDHLVKTHTRVFVQQTQAPAVAT
T

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FIGURE 4950

AGACCCTTTTCACAAGATGGCGCCGAAAGCGAAGAAGGAAGCTCCTGCCCCCTCCTAAAGCCGAAGCCAAAGCGAA
GGCTTTAAAGGCCAAGAAGGCAGTGTTGAAAGGTGTCCACAGCCACAAAAAGAAGAAGATCCGCACGTCACCCAC
CTTCCGGCAGCCGAAGACACTGCGACTCTGGAGACAGCCCCAAATATCCTCGGAAGAGCGCTCCCAGGAGAAACAA
GCTTGACCACTATGCTATCATCAAGTTTCCGCTGACCACTGAGTCTGCCATGAAGAAGACAGAAGACAACAACAC
ACTTGTGTTTCCTTGTGGATGTTAAAGCCAACAAGCACCAGATTAAACAGGCTGTGAAGAAGCTCTATGACATTGA
TGTGGCCAAGGTCAACACCCTGATTTGGCCTGATGGAGAGAAGAAGGCATATGTTGACTGGCTCCTGGTTACGA
TGCTTTGGATGTTGCCAACAAAATTGGGATCATCTAAACTGAGTCCAGCTGCCTAATTCTGAATATATATATATA
TATATATATATATATATATATCTTTTCACCAT

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FIGURE 4951

GCAACCGCAGCCAGCCCCAGTCCGGGAGGAAGTTCTGCCGGGCGCTCTCCGCCGGTGCCTCACTGGTTATAGTG
CTATACAGGAAACCTGGCAGCGCCGGAGCCGCGCGGTTCGAGGAGGGAGCGCGGGACGCCGAGCCACGCGCGCCT
GCCGGGACAAGTGGAGACGAGGCCGGCGAGCGGACGCCCCGAGGTTTGGCGAAGGAGCTGTGGCCGGGTCCCTT
CTTATCCAGCCCCGAGACACTGCGCTCCGGTGGGCGTCCCTGCGCTGGGAATCCCTCTCGGAGTTTTTCCAGGCC
GGCCGGGTGTCTCCGGGAAAGGCCCTGTTGGGGGAGGTGGGCCCGGAGCTGGCAGGTCTACAATCCGGTTGGAAG
GGCTCGCAGTGGGTGATTGAGGGTGCCAAATGACCTCCCCGCGAACGGGAACGCCCGCACTAGACAACCAGCCCCA
GACCGGCATTCCCAGAGCCGCAGGCGGGAGGGACGCAGGGACTCCGGGACAGCAAATCCCCGGGGGAGAAGGGAA
GGGGGAAGGCGGGACAGGGGAGGCCACCTCCTTGGGCTCCGCTAGCGACCCAGCCAGCGCCCCCTTCAGACGCAG
CCTTCTGGCTCCGGACCCCGGCTTTCTGCTCCGGTCCCTCGTCCCAATGCCCCCAAGGTCCCCAGCAGAGGCAT
TCAGGTTCTCTCTCGCCCCGCCAGACGCAGCTTCTTTGGGTATGGGTGACAGCACTCCTGAGCGTCTGCTGTCCC
TATTCGCTGCCGTTGCCAGCTCCGATTCCGCGAAACCTCTCCGGCACCACCTCGGAAGCCCCGCCAGGGCGATG
GTCCGGGCTAACTGCGGGCCCCGCCACCCGGCCCTTGGGCTCCCTGAGGCCCCGCCAGCAGACACCGGAGAG
CAATGGTGTGATCTCCGCACACTGCAACCTCTGCTCCAGGGTTCAAGTGGTTCTCTGCTCAGCCTCCCAAGC
AGATGGGACTACAGGTACTGGTAGTTAACTCTCAAGGAGAAATTTACGGTTGAGCACCGAAAAGAAAGTGGTCA
TGAAAGGAAGTATCAACAATTATCTTAAATTGGGTCAAGAAGGGAAAGTATCGCGTCTACCACAATCAATACTCCA
CTAATTCATTTGCTTTGAATAAGCACCAGCACAGAGAAGACCATGATAAGAGAAGGCATCTTGACATAAGTTCT
GTCTGACTCCAGCAGGAGAGTTCAAATGGAACGGTTCTGTCCATGGGTCCAAAGTTCTTACCATATCTACTCTGA
GACTGACTATCACCCAATTAGAAAAACAATCCCTTCATCCTTTCTTCATCCCAACCGGGCATCACATAGGGCAA
ACTGGATCAAGGCAGTTCAGATGTGTAGCAAACTCAGAGAATTTGCATTGGCTTTAGCCATTTTGGAGTGTGCAG
TTAAACCAAGTTGTGATGCTACCAATATGGCGAGAATCTTTAGGACATACCAGCTTTCTCCCTTTGTCTCATAACC
ATGTCCACCAATGAGAATGCTAATACACAAGCTGCCCATCTTCACAGATCTAAGAACAAGGGAAAGGACAGTACA
GAAACGAGGCGTCACAGAATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGG
AGAAATGTAAGCTCATTTCCTGATGATGCTACTTCTCCGCTGCAGGAAACTGCAACAACCAGGACTCCTGCCCT
AAGAGCCATAGGGAATATCGTCACTGGTACAGATGAACAGACTCAGGTTGTGATTGATGCAGGAGCACTCGCCGT
CTTTCCAGCCTGCTCACCAACCCCAAACTAACATTGAGAAGGAAGCTACGTGGACAATGTCAAACATCACAGC
CAGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTCCTTGTCAGCGATCTCTCTAAGAT
TTTGAGACACAAAAGGAAGCTGTATGGGCCGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAA
TAGAACCCTTGATGAACCTCTTACCTGCAAAAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATA
TCTTTCAGGCTGCTGAGAACTAGGTGAAACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCGTAGACA
AAATTGAAGCTCTACAAAACCATGAAAATGAGTCTGTATATAAGGCTTCATTAAGCTTAAGTGAAGTATTTCT
CTGTAGAGCTGCCAGAGCAGAGCTGAGCCACCCATTGCTGGAGAGGACATCCACGCAGGCCTGGACGAGCCGGAC
TGCTTACTAAGGATTTCTCCGTATCTGACTGCAACTCAGCACTCAGCTGCATGCGGGACAGGAAGAGGAAGAT
CAAAACGTTGTGCCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAAC
TTTTAGATCATGTAGCTGAGGCATAAATTTGTTGTGTACTATGTTTGGTATTTTGTCTTATTGTTTCTCTACTAA
GAACTCTTTCTTAAATGTGGTTTGTATTGTAGCACTTTTACACTGAACTATACTTGAACAGTTCCAAGTGA
CATACTGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTA
AATAAACATTCAAGTCCACCCTTTCTTGACTTC

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FIGURE 4952

MTSPRTGTPALDNQPQTGIPRAAGGRDAGTPGQQIPGGEGKGEGGTGEAHPWAPLATSQRPFRRSLPGSGPRLS
APVLVPMPPKVP SRGIQVPPRPAQTQLLWVWVTALLSVAVPIRCRCQLRFRETSPAPPRKPRPGRWSGPNLPAPP
TRPLGSLRPAQQTPE SNGVISAHCNLCLQGSSGSPASASQADGTTGTGS

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FIGURE 4953

GCCAGTGAATTTCGGGGGCTCAGCCCTCCTCCCTCCCTTCCCCCTGCTTCAGGCTGCTGAGCACTGAGCAGCGCTC
AGAATGGAAGCCATCGCCAAATATGACTTCAAAGCTACTGCAGACGACGAGCTGAGCTTCAAAGGGGGGACATC
CTCAAGGTTTTGAACGAAGAATGTGATCAGAACTGGTACAAGGCAGAGCTTAATGGAAAAGACGGCTTCATTCCC
AAGAACTACATAGAAATGAAACCACATCCGTGGTTTTTTGGCAAAATCCCCAGAGCCAAGGCAGAAGAAATGCTT
AGCAAACAGCGGCACGATGGGGCCTTTCTTATCCGAGAGAGTGAGAGCGCTCCTGGGGACTTCTCCCTCTCTGTC
AAGTTTGGAACGATGTGCAGCACTTCAAGGTGCTCCGAGATGGAGCCGGGAAGTACTTCTCTGGGTGGTGAAG
TTCAATTCTTTGAATGAGCTGGTGGATTATCACAGATCTACATCTGTCTCCAGAAACCAGCAGATATTCCTGCGG
GACATAGAACAGGTGCCACAGCAGCCGACATACGTCCAGGCCCTCTTTGACTTTGATCCCCAGGAGGATGGAGAG
CTGGGCTTCCGCCGGGGAGATTTTATCCATGTCTATGGATAACTCAGACCCCAACTGGTGGAAAGGAGCTTGCCAC
GGGCAGACCGGCATGTTTCCCGCAATTATGTCAACCCCGTGAACCGGAACGCTTAAGAGTCAAGAAGCAATTAT
TTAAAGAAAGTGAAAAATGTAAACACATACAAAAGAATTAAACCCACAAGCTGCCTCTGACAGCAGCCTGTGAG
GGAGTGCAGAACACCTGGCCGGGTCAACCTGTGACCCCTCTCACTTTGGTTGGAACTTTAGGGGGTGGGAGGGGGC
GTTGGATTTAAAAATGCCAAACTTACCTATAAATTAAAGAAGATTTTATTACAAATTTTCACTGCTGCTCCTC
TTTCCCTCCTTTGCTTTTTTTTCATCCTTTTTTCTCTTCTGTCCATCAGTGCATGACGTTTAAGGCCACGTAT
AGTCCTAGCTGACGCCAATAATAAAAAACAAGAAACCAAAAAAAAAAAAAACCCGAATTCA

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FIGURE 4954

MEAI AKYDFKATADDELSFKRGDILKVLNEECDQNWYKAELNGKDGFI PKNYIEMKPHPWFFGKIPRAKAEEMLS
KQRHDGAFLIRESESAPGDFSLSVKFGNDVQHFKVLRDGAGKYFLWVVKFNSLNELVDYHRSTSVSRNQQIFLRD
IEQVPQQPTYVQALFDFDPQEDGELGFRRGDFIHVMDNSDPNWWKGACHGQTGMFPRNYVTPVNRNV

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FIGURE 4955

GGCACGAGGGCTCTGAGCGGGAGGCCTGAGCGGGAAGCATTGGCGTCCGAGCGACTTCTAGGAGCCTGGGGTTTCG
GCGCTATGGGAGGAGCTCGATGGCGAGCCAACAGTCACTTTGATTCCAGGCGTGAAATCCAAGAAGAACCAAATGT
ATTTTGACTGGGGTCCAGGGGAGATGCTGGTATGTGAAACCTCCTTCAACAAAAAGAAAAATCAGAGATGGTGC
CAAGTTGCCCTTTATCTATATCATCCGTAAGGATGTAGATGTTTACTCTCAAATCTTGAGAAAACCTCTTCAATG
AATCCCATGGAATCTTTCTGGGCCTCCAGAGAATTGACGAAGAGTTGACTGGAAAAATCCAGAAAATCTCAATTGG
TTCGAGTGAGTAAAACTACCGATCAGTCATCAGAGCATGTATGGAGGAAATGCACCAGGTTGCAATTGCTGCTA
AAGATCCAGCCAATGGCCGCCAGTTCAGCAGCCAGGTCTCCATTTTGTGAGCAATGGAGCTCATCTGGAACCTGT
GTGAGATTCTTTTTATTGAAGTGGCCCGAGCTGGCCCTCTCCTCCTCCATCTCCTTGACTGGGTCCGGCTCCATG
TGTGCGAGGTGGACAGTTTGTGCGCAGATGTTCTGGGCAGTGAGAATCCAAGCAAACATGACAGCTTCTGGAAC
TGGTGACCATCTTGGTGCTGCAGGGCCGGCTGGATGAGGCCCGACAGATGCTCTCCAAGGAAGCCGATGCCAGCC
CCGCCTCTGCAGGCATATGCCGAATCATGGGGGACCTGATGAGGACAATGCCCATTTCTTAGTCCTGGGAACACCC
AGACACTGACAGAGCTGGAGCTGAAGTGGCAGCACTGGCAGCAGGAATGTGAGCGGTACCTCCAGGACAGCACAT
TCGCCACCAGCCCTCACCTGGAGTCTCTCTTGAAGATTATGCTGGGAGACGAAGCTGCCTTGTTAGAGCAGAAGG
AACTTCTGAGTAATTGGTATCATTTCTTAGTGACTCGGCTCTTGTTACTCCAATCCACAGTAAACCCATTGATC
TGCACTACTATGCCCAGTCCAGCCTGGACCTGTTTCTGGGAGGTGAGAGCAGCCCAGAACCCCTGGACAACATCT
TGTTGGCAGCCTTTGAGTTTGACATCCATCAAGTAATCAAAGAGTGACAGCATCGCCCTGAGCAACTGGTGGTTTG
TGGCCACCTGACAGACCTGCTGGACCACTGCAAGCTCCTCCAGTCACACAACCTCTATTTTCGGTTCCAACATGA
GAGAGTTCTCTCTGCTGGAGTACGCCTCGGGACTGTTTGCTCATCCCAGCCTGTGGCAGCTGGGGGTCGATTACT
TTGATTACTGCCCCGAGCTGGGCCGAGTCTCCCTGGAGCTGCACATTGAGCGGATACCTCTGAACACCGAGCAGA
AAGCCCTGAAGGTGCTGCGGATCTGTGAGCAGCGGCAGATGACTGAACAAGTTCGAGCATTGTGAAGATCTTAG
CCATGAAAGCCGTCCGCAACAATCGCCTGGGTTCTGCCCTCTCTTGAGCATCCGTGCTAAGGATGCCGCCTTTG
CCACGCTCGTGTGACAGAGTTCCCTCAGGGATTACTGTGAGCGAGGCTGCTTTTCTGATTTGGATCTCATTGACA
ACCTGGGGCCAGCCATGATGCTCAGTGACCGACTGACATTCCTGGGAAAGTATCGCGAGTTCACCGTATGTACG
GGGAGAAGCGTTTTGCCGACGCAGCTTCTCTCCTTCTGTCTTGATGACGCTCTCGGATTGCCCCCTCGGTCTTTCT
GGATGACTCTGCTGACAGATGCCTTGCCCCCTTTTGAACAGAAACAGGTGATTTTCTCAGCAGAACAGACTTATG
AGTTGATGCGGTGCTGAGGACTTGACGTCAAGAAGACCTGTGCATGGAGAATCTGATACCGAGCAGCTCCAGG
ATGATGACATAGAGACCACCAAGGTGGAATGCTGAGACTTCTCTGGCACGAAATCTTGCTCGGGCAATTATAA
GAGAAGGCTCACTGGAAGGTTCTTGAGAACTGCTTCAATGTGGTATCTTTGTATGGCAATGTATATAGATTTTTT
AAAAGAATAAATGTTGTTTTCGCAATGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4956

MEELDGEPTVTILPGVNSKKNQMYFDWGPGEMLVCETSFNKKEKSEMVPSCFFIYIIRKDVVDVYSQILRKLFNES
HGIFLGLQRIDEELTGKSRKSQLVRVSKNYRSVIRACMEEMHQVAIAAKDPANGRQFSSQVSILSAMELIWNLCE
ILFIEVAPAGPLLLHLLDWVRLHVCEVDSLADVLGSENP SKHDSFWNLVTILVLQGRLEARQMLSKEADASPA
SAGICRIMGDL MRTMPILSPGNTQTLTELELKWQHWHEECERYLQDSTFATSPHLESLLKIMLGDEAALLEQKEL
LSNWHFLVTRLLYSNPTVKPIDLHYAQQSSLDLFLGGESSPEPLDNILLAAFEFDIHQVIKECSIALSNWWFVA
HLTDLLDHCKLLQSHNLYFGSNMREFLLLEYASGLFAHPSLWQLGVDYFDYCPELGRVSLELHIERIPLNTEQKA
LKVLRIEQRMTEQVRSICKILAMKAVRNNRLGSALSWSIRAKDAAFATLVSDRFLRDYCERGCFSDDLIDNL
GPAMMLSDRLTFLGKYREFHRMYGEKRFADAASLLLSLMTSRIAPRSFWMTLTLDALP LLEQKQVIFS AEQTYEL
MRCLEDLT SRRPVHGESDTEQLQDDDIETTKVEMLRLSLARNLARAI IREGSLEGS

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FIGURE 4957

GGTGCTGCTTGTGTGCTCGTTTGGTGCGGACCTGGTACCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGC
TCGCCATGGCCGACGAAAAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGG
GGCAGGATGGTTCTGTGGTGCAGTTTAAGATTAAAGAGGCATACACCACTTAGTAACTAATGAAAGCCTATTGTG
AACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTTGACGGGCAACCAATCAATGAAACAGACACACCTG
CACAGTTGGAAATGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGA
ACCTGCTTCTTTACTCCAGAACTCTGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAAGTCAATTTGGT
TCCACCACATCCTGACTACTACCGTATAGTTTTCTCTATTCTTTTCATTTCCCCCTTCCCCATTCCCTTTATTGTAC
ATAAAGTAACTGGTATATGTGCACAAGCATATTGCATTTTTTTTTTTTTTAACTAAACAGCCAATGGTATGTTTT
GATTGACATCAAGTGGAGACGGGATGGGGAAAAATACTGATTCTGTGAAAAATACCCCTTTCTCCATTAGTGGCA
TGCTCATTAGCTCTTA

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FIGURE 4958

GCAGCGGAGCTTCGGCCTCGGCTCTGTACCATGAAGAAGGGCCCCAGTGGCTATGGCTTCAACCTGCACAGCGA
CAAGTCCAAGCCAGGCCAGTTCATCCGGTCAGTGGACCCAGACTCCCCGGCTGAGGCTTCAGGGCTCCGGGCCCA
GGATCGCATTGTGGAGGTGAACGGGGTCTGCATGGAGGGGAAGCAGCATGGGGACGTGGTGTCCGCCATCAGGGC
TGGCGGGGACGAGACCAAGCTGCTGGTGGTGGACAGGGAACTGACGAGTTCTTCAAGAAATGCAGAGTGATCCC
ATCTCAGGAGCACCTGAATGGTCCCCTGCCTGTGCCCTTCACCAATGGGGAGATACAGAAGGAGAACAGTCGTGA
AGCCCTGGCAGAGGCAGCCTTGGAGAGCCCCAGGCCAGCCCTGGTGAGATCCGCTCCAGTGACACCAGCGAGGA
GCTGAATCCCAAGACAGCCCCCAAACAGGACTCCACAGCGCCCTCGTCTACCTCCTCCTCCGACCCCATCCT
AGACTTCAACATCTCCCTGGCCATGGCCAAAGAGAGGGCCCCACCAGAAACGCAGCAGCAAACGGGGCCCCGCAGAT
GGACTGGAGCAAGAAAAACGAACTCTTCAGCAACCTCTGAGCGCCCTGCTGCCACCCAGTGACTGGCAGGGCCGA
GCCAGCATTCACCCCCACCTTTTTCTCTCCCAATTACTCCCTGAATCAATGTACAAATCAGCACCCACATC
CCCTTTCTTGACAAATGATTTTTCTAGAGAACTATGTTCTTCCCTGACTTTAGGGAAGGTGAATGTGTTCCCGTC
CTCCCGCAGTCAGAAAGGAGACTCTGCCTCCCTCCTCCTCACTGAGTGCCTCATCCTACCGGGTGTCCTTTGCC
ACCCTGCCTGGGACATCGCTGGAACCTGCACCATGCCAGGATCATGGGACCAGGCGAGAGGGCACCCCTCCCTTCC
TCCCCATGTGATAAATGGGTCCAGGGCTGATCAAAGAACTCTGACTGCAGAACTGCCGCTCTCAGTGGACAGGG
CATCTGTTACCTGAGACCTGTGGCAGACACGTCTTGTTTTCAATTGATTTTTGTTAAGAGTGCAGTATTGCAGA
GTCTAGAGGAATTTTTGTTTCCTTGATTAACATGATTTTCCTGGTTGTTACATCCAGGGCATGGCAGTGGCCTCA
GCCTTAAACTTTTTGTTCTACTCCACCCCTCAGCGAACTGGGCAGCACGGGGAGGGTTTGGCTACCCCTGCCCAT
CCCTGAGCCAGGTACCACCATTGTAAGGAAACACTTTCAGAAATTCAGCTGGTTCTTCCAAACC

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FIGURE 4959

MSADAAAGAPLPRLCCLEKGPNGYGFFHLHGEKGKLGQYIRLVEPGSPAEEKAGLLAGDRLVEVNGENVEKETHQQV
VSRIRAAALNAVRLLVVDPETDEQLQKLGQVREELLRAQEAPGQAEPPAAAEVQGAGNENEPREADKSHPEQREL
RPRLCTMKGPSGYGFNLHSDKSKPGQFIRSVDPSPAEASGLRAQDRIVEVNGVCMEGKQHGDVVSAIRAGGDE
TKLLVVDRETDEFFKKCRVIPSQEHNLGPLPVPTNGEIQKENSREALAEAALESPPALVRSASSDTSEELNSQ
DSPPKQDSTAPSSSTSSDPILDFNISLAMAKERAHQKRSSKRAPQMDWSKKNELFSNL

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FIGURE 4960

CGCCCAGCAGCCCGTGGGCAGGCGCGGCGGAGCGAGCGGGGCCGGCGGGCGGCCGAGGGACGCCGAGGCCTCG
GGCGGGGGCTGGCCCGGGGTTCAGGTCTCCAGTGGGGGCTGCAGACTAAGCAAAATGAGGCGGTTCTTGAGGCC
AGGGCATGACCCTGTGCGGGAGAGGCTCAAGCGGGACCTGTTCCAGTTTAACAAGACGGTGGAGCATGGCTTCCC
GCACCAGCCCAGCGCCCTCGGCTACAGCCCCTCCCTGCACATCCTGGCCATCGGCACCCGTTCTTGAGCCATCAA
GCTCTACGGAGCCCCAGGCGTGGAGTTTATGGGGCTGCACCAGGAGAACAACGCTGTGACGCAGATCCACCTCCT
GCCCCGGCCAGTGCCAGCTGGTACCCCTGCTGGATGACAACAGCCTGCACCTTTGGAGCCTGAAGGTCAAGGGCGG
GGCATCGGAGCTGCAGGAGGATGAGAGCTTACACTGCGTGGACCCCCAGGGGCTGCCCCCAGTGCCACACAGAT
CACCGTGGTCTTGCCACATTCTCCTGCGAGCTGCTTACCTGGGCACCGAGAGTGGCAACGTGTTTGTGGTGCA
GCTGCCAGCTTTTCGTGCGCTGGAGGACCGGACCATCAGCTCGGACGCGGTGCTGCAGCGGTTGCCAGAGGAGGC
CCGCCACCGGCGTGTGTTGAGATGGTGGAGGCACTGCAGGAGCACCTCGAGACCCCAACCAGATCCTGATCGG
CTACAGCCGAGGCCTCGTTGTCTCTGGGACCTACAGGGCAGCCGCGTGCTTACCACTTCTCAGCAGCCAGCA
ACTGGAGAATCTGGTGGCAGCGGGACGGCGCCTGCTCGTCAGCTGTCACTCTGACGGCAGCTACTGCCAGTG
GCCCCGTGTCCAGCGAAGCCCAGCAACCAGAGCCCCCTCCGACGCTCGTGCCTTACGGTCCCTTTTCTTGCAAAGC
GATTACCAGAACTCTCTGGCTGACCACTAGGCAGGGGTGCCCCTTACCATCTTCCAGGGTGGCATGCCACGGGC
CAGCTACGGGGACCGCCACTGCATCTCAGTGATCCACGATGGCCAGCAGACGGCCTTCGACTTCACCTCCCGTGT
CATCGGCTTCACTGTCTCTACAGAGGCAGACCTGTCAGCCACCTTTGACGACCCCTATGCCCTGGTGGTGTCT
TGAGGAGGAGCTGGTGGTGATTGACCTGCAGACAGCAGGCTGGCCACCGGTCCAGCTGCCCTACCTGGCTTCTCT
GCACTGTTCCGCCATCACCTGCTCTCACCACGTCTCCAACATCCCGCTGAAGCTGTGGGAGCGGATCATTGCCGC
CGGCAGCCGGCAGAACGCACACTTCTCCACCATGGAGTGGCCAATTGATGGTGGCACCAGCCTGACCCCAAGCCCC
ACCCAGAGGGACCTGCTGCTCACAGGGCAGGAGACGGCACGGTGCAGTCTGGGATGCCTCGGGTGTCTGCCT
GCGGTGCTCTACAACTCAGCACTGTGCGCGTGTTCCTCACCACACGGACCCCAACGAGAACTTCACTGCCCA
GGCGAGGACGAGTGGCCCCACTCCGCAAGGTGGGTCTTTGACCCCTACAGTGATGACCCCGGCTGGGCAT
CCAGAAGATCTTCTCTGCAAGTACAGCGGTACCTGGCTGTGGCAGGCACGGCAGGGCAGGTGCTGGTACTGGA
ACTGAATGACGAGGACGCGGAGCAGGCTGTGGAGCAGGTGGAGGCCGACCTGCTGCAGGACCAAGAGGGCTACCG
CTGGAAGGGGCACGAGCGCTGGCAGCCCGCTCAGGGCCCGTGCAGTCTTGGGATGCCTCGGGTGTCTGCCT
GGTGCAGTGTGACCCCCGGCTGTGGTCACTCCTTGGCCCTGCACTCTGAGTGGCGGCTCGTGGCCTTCGGCAC
CAGCCATGGCTTTGGCCTCTTTGACCACAGCAGCGCGGCAGGTCTTTGTTAAGTGCACACTGCACCCAGTGA
CCAGCTGGCCTTGGAGGGCCCACTCTCCCGCTCAAGTCCCTCAAGAAGTCCCTGCGTCAGTCATTCCGCCGAT
GCGTCGGAGCCGGGTGTCCAGCCGGAAGCGGCACCCGGCTGGCCCCCAGGAGAGGCACAGGAGGGGATGCCAA
GGCTGAGCGGCCAGGCCTCCAGAATGAGAGTGGCGCTGTGCAGCGCAAGATCGAGGCTCGCTCGGCAGGGA
CTCCTTACAGGCTTCTGTCGGGACCTGTACTTTGCTGACACCTACCTGAAGGACAGCTCCCGGCACTGCCCTC
GCTGTGGGCTGGACCAATGGGGGCACCATCTATGCCCTTCTCCCTGCGTGTGCCTCCCGCCGAGCGGAGAATGGA
TGAGCCTGTGCGGGCAGAGCAGGCCAAGGAGATCCAGCTGATGCACCGGGCGCCGGTGGTGGGCATCCTGGTGCT
CGACGGACACAGCTTACCCCTTCCCGAGCCCCCTCGAAGTGGCCCATGATCTGTGCAAGAGCCCTGACATGCAGGG
AAGCCACCAGCTGCTGCTGTATCAGAGGAGCAGTTCAAGGTGTTACGCTGCCCAAGGTGAGTGCCAAGCTGAA
GTTGAAGCTGACGGCCCTGGAGGGCTCAAGAGTGGCGGGTGCAGCTGGCCCACTTCGGCAGTCTGTCAGCCGA
GGACTACGGGGAGCACCACTGGCAGTCTTACCAACCTGGGCGACATCCAGGTGGTCTCGCTGCCCTGCTCAA
GCCCCAGGTGCGCTACAGCTGCATCCGCCGGGAGGACGTGAGTGGCATCGCCTCCTGCGTCTTACCAAATATGG
CCAAGGCTTCTACCTGATCTCACCTCGGAGTTTGGAGCGCTTCTCTCTTCCACCAAGTGGTGGTGGAGCCCCG
GTGCTGGTGGATTGAGCAGAAACCAAGAACCACCGCCCTGGTAACGGTGGCGGGCCCCAAGAAGGCCCGAGCCG
AGCCAGGAACCTCAGGGACTCAGAGTGATGGCGAGGAGAAGCAGCCCGGCTGGTGATGGAGCGCGCTCTGCTCAG
TGATGAGAGAGCGGCAACTGGCGTTCACATCGAGCCGCGTGGGGTGCAGCCTCAGCAATGGCGGAGCAGAGTGA
GTGGCTGAGCGTCCAGGCTGCGCGATGAGCAGACACTACTACTGATGGCCTTTTGGGGGTCCCTGCCCAACCGG
AGAGGCCGCTGCACAGGGCCCCGCCAGGGGCTGGGGGCATCCCGGCTTCCACAATGCAGCTGCTCTGGGCCTCGG
GAGAGGAGAGACCCAGTCCCTGGGCTGCCCTTCCGGGCTCGTCTGTCTGGGTCTTTGGTCAATGTTGCAC
AGTTTTTATGCTCCCAATCCCTTTTGTAGTGGGCTGGGTTTTAAGTTATAAATGTTAACTGCCTCTGGGTGAAA
AAGTTTTTAATAAACACCTATTACCTCTTG

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FIGURE 4961

MRRFLRPGHDPVRERLKRDLFQFNKTVEHGFFHQPSALGYSPSLHILAIGTRSGAIKLYGAPGVEFMGLHQENNA
VTQIHLLPGQCQLVTLLDDNSLHLWSLKVKGGASELQEDESFTLRGPPGAAPSATQITVVLPHSSCELLYLGTES
GNVFVQLPAFRALEDRTISSDAVLQRLPEEARHRRVFEMVEALQEHPRDPNQILIGYSRGLVVIWDLQGSRLVY
HFLSSQQLENIWWQRDGRLLVSCHSDGSYCQWPVSSEAQQPEPLRSLVPYGPFPCKAITRILWLTTTQGLPFTIF
QGGMPRASYGDRHCISVIHDGQQTAFDFTSRVIGFTVLTADPAATFDDPYALVVLAEEELVVIDLQTAGWPPVQ
LPYLASLHCSAITCSHHVSNIPLKLWERIIAAGSRQNAHFSTMEWPIDGGTSLTPAPPQRDLLLLTGHDGTVRFW
DASGVCLRLLYKLSTVRVFLTDTPNENFSAQGEDEWPPLRKVGSDPYSDPRLGIQKIFLCKYSGYLAVAGTA
GQVLVLELNDEAAEQAVEQVEADLLQDQEGYRWKGHERLAARSGPVRFEFGFQPFVLVQCQPPAVVTSALHSEW
RLVAFGTSHGFGLFDHQRRQVFVKCTLHPSDQLALEGPLSRVKSLLKSLRQSFRMRRSRVSSRKRHPAGPPGE
AQEGSAKAERPGLQNMELAPVQRKIEARSAEDSFTGTFVRTLYFADTYLKDSSRHCPSLWAGTINGGTIYAFSLRVP
PAERRMDEPVRAEQAKEIQLMHRAPVVGILVLDGHSVPLPEPLEVAHDLSKSPDMQGSQLLLVSEEQFKVFTLP
KVSARKLKLKLTALEGSRVRRVSAHFGSRRAEYGEHHLAVLTNLGDIQVVSLEPLLKPQVRYSCIRREDVSGIAS
CVFTKYGQGFYLI SPSEFERFSLSTKWLV EPRCLVDSAETKNHRPGNGAGPKKAPSRARNSGTQSDGEEKQPGLV
MERALLSDERAATGVHIEPPWGAASAMAEQSEWLSVQAAR

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FIGURE 4962A

GTGGGTTCTGCCTAAAGCTGAATTCCAGCGCTTTGGCTTCTCTGAGTTGGGGTTGTGTATAGGGGTCTTCGAAC
AGTTCCGGAACCAAGCAGCAGCCTTTAATTCTTGGGCGGACCACGGCCGGTTCGTATATCTTAGGGTGAAGAGAG
GGAGGTGTCGGCCAGCCAAGAGAGAAAATTGCGGATCTTGGGCTCAGGAAGACGGGAGAAGGGGTTCCGGGGTCCC
GGGGTGGAAGAACGGTCGTCGTGGTTGCGCTTATAGAAGTAGGAGCAGAGGGTTCTCGTGGCAACCTTTTACTAC
CTTTGCCTTAACCTTTGGCCACTGTTCTTGGCTAAGATGAGCAGCCACCATAACCACTTTTCTTTGACCCTGAG
CGGCGAGTCCGGAGTACGCTGAAGAAGGTCTTTGGGTTTGAAGCTTTTAAGACGCCCTTTACAGGAGAGTGCGACC
ATGGCTGTAGTAAAAGGTAACAAGGACGTCTTTGTGTGCATGCCACAGGGGCAGGAAAATCCCTATGCTATCAG
CTCCCTGCTCTGTGGCCAAAGGCATCACCATTGTAGTCTCTCCTCTCATTGCTTTGATTACAGGACCAAGTGGAC
CACTTGCTAACCCTAAAGGTACGAGTAAGTTCCCTGAAGCTCTCTGCACAGGAAAAGGAAGGAGCTGCTT
GCTGACCTGGAGCGAGAAAAGCCCCAGACCAAGATTCTGTACATCACCACAGAGATGGCAGCTTCATCCTCCTTC
CAGCCCACCCTGAAGTCCCTGGTGTCCCGCCACCTGCTGTCTTACTTGGTGGTGGATGAAGCTCATTGTGTTTTCC
CAATGGGGGATGACTTTCTGCTGCTGACTACTTGCCTCTGGGTGCCCTGCGCTCCCGCTGGGACATGCCCTTGT
GTGGCTCTGACCGCCACAGCCACCCACAGGTCCAAGAGGACGTGTTTGTCTGCCCTGCACCTGAAGAAACAGTT
GCCATCTTCAAGACTCCCTGCTTCCGGGCCAACCTCTTCTATGATGTGCAATTCAAGGAACTGATTTCTGATCCC
TATGGGAACCTGAAGGACTTCTGCCTTAAGGCTCTTGGACAGGAGGCTGATAAAGGGTTATCTGGCTGCGGCATT
GTGTACTGCAGGACTAGAGAGGCTTGTGAACAGCTGGCCATAGAGCTCAGCTGCAGGGGTGTGAACGCCAAGGCT
TACCATGCAGGGCTGAAGGCCTCTGAAAGAACGCTGGTGCAGAACGACTGGATGGAGGAGAAGGTCCCTGTAATT
GTTGCAACCATTAGTTTTGGGATGGGAGTGGATAAAGCCATGTGAGGTTGTGCGCCATTGGAATATTGCCAAG
TCTATGGCTGGTACTACCAGGAGTCTGGCCGGGCTGGCAGGGATGGGAAGCCTTCTGCTGCCGTCTCTATTAC
TCCAGGAATGACCGGGACCAAGTCAGCTTCTTGATCAGGAAGGAAGTAGCAAACTCCAGGAAAAGAGAGGAAAC
AAAGCATCTGATAAAGCCACTATCATGGCCTTTGATGCCCTGGTGACCTTCTGTGAAGAACTGGGGTGCCGCCAT
GCCGCCATTGCCAAGTACTTCGGGGATGCGCTGCCCTGCCCTGCGCCAAAGGCTGCGACCACTGCCAGAACCCACG
GCCGTGCGGAGGCGGCTGGAGGCCTTGGAGCGCAGCAGCTGGAGCAAGACCTGCATCGGGCCCTCCAGGGG
AACGGCTTTGACCCGAGCTGTATGAGGGAGGCCGAAGGGCTACGGGGACTTCAGCAGGTATGACGAAGGTTCT
GGAGGCAGCGGGATGAAGGCAGAGATGAGGCCACAAGCGGGAGTGAACCTCTTCTATCAGAAGCAGATGCAG
CTGCGCAAGGGCAAAGACCCCAAGATAGAAGAAATTGTACCCCAAGATGAGAACTGTCCCTGAAAGAGGCTTCT
AGCAGGAGGATCCCCAGGCTGACTGTGAAGGCAGGGAGCACTGCCTGCGGCTTCTGGAGGAGGCGCTGAGCAGC
AACCGCCAGTCAACAGTACCGCTGATGAAGCTGACCTCCGGGCCAAGGCCGTGGAGCTGGAACATGAGACATT
CGGAACGCCAAGGTGGCCAACCTCTACAAGGCCAGCTGCTGAAGAGGTGGCCGATATCCACAGAGCCTCCAAG
GATGGGCAGCCCTATGACATGGGAGGCAAGTGCCCAAGCTGCAAGTCCCAAGCTGAGCCCCGAGCCCAATGAG
TATGACATTCCACCAGCCTCCCATGTGTACTCGCTCAAACCAAGCGGGTGGGAGCTGGTTTCCCCAAAGGCTCC
TGCCCGTTCCAGACGGCCACGGAAGTATGGAGACAACTCGGATCAGGGAGCAAGCCCCCAGCCGAGCGGGGA
GGCGAGCACGAGCCCCGAGCCGGCCCTGTGGCTCCTGGATGAGGATGGGAGTGAGCCCTCCTGGGCCAGA
GGGGAGGTCCCTGGAGGCAGCGCTCACTATGGGGGCCCTCCCTGAGAAGAAGGCAAAAAGTTTCTCTGGGGC
AGCTCCCTTGCCAAGGGCCGGGCTAGCAAGAAACAGCAGCTCCTAGCCACAGCGGCCCAAGGATTCTCAGAGC
ATCGCCCGCTTCTTCTGCCGAAGGGTGGAAAGCCAGCTCTGCTGGCATCAGCCCCAGAGGCAGAAGGTGCCTGC
CCCTCCTGTGAGGGGGTTTCAAGGACCCCGATGGCCCCAGAGAAGTACACAGGGGAGGAAGATGGAGCCGGGGGA
CATTGCGCTGCCCTCCCCAGACTGAGGAGTGCTCAGGGAGAGGGCCAAGCACCTGCCCGCCAGAGACCAGGGC
ACCCCTGAAGTCCAGCCACCCCTGCAAAGGACACATGGAAGGGCAAGCGGCCCTCGATCCCAGCAGGAGAACCA
GAGAGCCAGCCTCAGAAGAGGCCACGCCCTCAGCCAAGCCCTCCGTCGTAGCTGAGGTCAAGGGCAGCGTCTCG
GCCAGCGAACAGGGCACCTTGAATCCACGGCTCAAGACCCCTTCCAGCTCTCCGCTCCTGGCGTCTCCTTGAAG
GAGGCTGCAAATGTTGTGGTCAAGTGCCTCACCCCTTTCTACAAGGAGGGCAAGTTTGTCTTCAAGGAGTTGTTT
AAAGGCTTTGCCCGCCACCTCTCACACTTGCTGACTCAGAAGACCTCTCCTGGAAGGAGCGTGAAAGAAGAGGCC
CAGAACCTCATCAGGCACTTCTTCCATGGCCGGGCCCGGTGCGAGAGCGAAGCTGACTGGCATGGCCTGTGTGGC
CCCCAGAGATGACCAACTGCTGGCTGGGCAGGGCCCGCTCCTCCCCAGATTCTAGCATGGGTATCCTGGGCC
TCACCTGCTGATGCCAGGGCCATCGTCTTTTCTCAGTCTTCTCCTTTCCAACCATACTTGGCTTTGGGGATGAC
CCCAGACACCCCTGAATCCAGGTCAGAGGTCAGCCACCTTTCTTTCTGCTTGCAAAGCCTATAGACCTTCTC
AGAGCGTCTCATGGCTGGGTTTTCTGGACACATGTGAGGACAGAAGGTGGAGGGTGGTGGAGCTGCTGCTG

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FIGURE 4962B

GAAGAAGGGGAAGGAAGAGTGGCCCCCTCCCCGAGTTCTAAGTCAGGATGAGGCCCACCTGTCCAAGGTATCGGAA
CCTACCCAGGGGACCCTCAGATCCTCCACCCACTCCCCCATCCATTACGATGCCAGCTTCCAGCCTTGCCCAGGT
CAGAGCTGTGGCAGAGGAGAGGCAGCCAGGCCCTGTTCTGCTCAGCTCCTGCTCAGGAAGGCCAGGCCTGACAG
ATGTTTGGGAGAGGAATAAAGTTGTGTTGTTGTGGGGCATGCAGGCGTGCACAC

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FIGURE 4963A

GCGCTGCCCGCCTCGTCCCCACCCCCAACCCCCGCGCCGCCCTCGGACAGTCCCTGCTCGCCCGCGCGCTGC
AGCCCCATCTCCTAGCGGCAGCCCAGGCGCGGAGGGAGCGAGTCCGCCCCGAGGTAGGTCCAGGACGGGCGCACA
GCAGCAGCCGAGGCTGGCCGGGAGAGGGAGGAAGAGGATGCGCAGGGCCACGCCCCAGCCCATGGGCCAGGCTGCT
CCTGGCAGCCTTGATCAGCGTCAGCCTCTCTGGGACCTTGCCAAACCGCTGCAAGAAGGCCCCAGTGAAGAGCTG
CACGGAGTGTGTCCGTGTGGATAAGGACTGCGCCTACTGCACAGACGAGATGTTTCAGGGACCGGCGCTGCAACAC
CCAGGCGGAGCTGCTGGCCGCGGCTGCCAGCGGGAGAGCATCGTGGTCATGGAGAGCAGCTTCCAAATCACAGA
GGAGACCCAGATTGACACCACCTGCGGCGCAGCCAGATGTCCCCCAAGGCCCTGCGGGTCCGTCTGCGGCCCGG
TGAGGAGCGGCATTTTGAGCTGGAGGTGTTTGAGCCACTGGAGAGCCCCGTGGACCTGTACATCCTCATGGACTT
CTCCAATCCATGTCCGATGATCTGGACAACCTCAAGAAGATGGGGCAGAACCTGGCTCGGGTCTTGAGCCAGCT
CACCAGCGACTACACTATTGGATTGGCAAGTTGTGGCAAAAGTCAGCGTCCCGCAGACGGACATGAGGCCTGA
GAAGCTGAAGGAGCCCTGGCCCAACAGTGACCCCCCTTCTCCTTCAAGAAGCTCATCAGCCTGACAGAAGATGT
GGATGAGTTCGGAATAAACTGCAGGGAGAGCGGATCTCAGGCAACCTGGATGCTCCTGAGGGCGGCTTCGATGC
CATCCTGCAGACAGCTGTGTGCACGAGGGACATTGGCTGGCGCCCGGACAGCACCCACCTGCTGGTCTTCTCCAC
CGAGTCAGCCTTCCACTATGAGGCTGATGGCGCCAACGTGCTGGCTGGCATCATGAGCCGCAACGATGAACGGTG
CCACCTGGACACCACGGGCACCTACACCCAGTACAGGACACAGGACTACCCGTCGGTGGCCACCCTGGTGGCCT
GCTCGCCAAGCACAAATCATCCCCATCTTTGCTGTACCAACTACTCCTATAGCTACTACGAGAAGCTTCACAC
CTATTTCCCTGTCTCCTCACTGGGGGTGCTGCAGGAGGACTCGTCCAACATCGTGGAGCTGCTGGAGGAGGCCTT
CAATCGGATCCGCTCCAACCTGGACATCCGGGCCCTAGACAGCCCCCGAGGCCTTCGGACAGAGGTACCTCCAA
GATGTTCCAGAAGACGAGGACTGGGTCTTTACATCCGGCGGGGGGAAGTGGGTATATACCAGGTGCAGCTGCG
GGCCCTTGAGCACGTGGATGGGACGCACGTGTGCCAGCTGCCGGAGGACCAGAAAGGGCAACATCCATCTGAAACC
TTCTTCTCCGACGGCTCAAGATGGACGCGGGCATCATCTGTGATGTGTGCACCTGCGAGCTGCAAAAAGAGGT
GCGGTCAGCTCGCTGCAGCTTCAACGGAGACTTCGTGTGCGGACAGTGTGTGTGCAGCGAGGGCTGGAGTGGCCA
GACCTGCAACTGTCTCACCGGCTCTCTGAGTGACATTAGCCCTGCCTGCGGGAGGGCGAGGACAAGCCGTGCTC
CGGCCGTGGGGAGTGCCAGTGCGGGCACTGTGTGTGTACGGCGAAGGCCGCTACGAGGGTCAGTTCTGCGAGTA
TGACAACTTCCAGTGTCCCGCACTTCCGGGTTCTGTGCAATGACCGAGGACGCTGCTCCATGGGCCAGTGTGT
GTGTGAGCCTGGTTGGACAGGCCCCAAGCTGTGACTGTCCCTCAGCAATGCCACCTGCATCGACAGCAATGGGG
CATCTGTAATGGACGTGGCCACTGTGAGTGTGGCCGTGCCACTGCCACCAGCAGTCGCTCTACACGGACACCAT
CTGCGAGATCAACTACTCGCGATCCACCCGGGCTCTGCGAGGACCTACGCTCCTGCGTGCAGTGCCAGGCGTG
GGGCACCGGCGAGAAGAAGGGCGCACGTGTGAGGAATGCAACTTCAAGGTCAAGATGGTGGACGAGCTTAAGAG
AGCCGAGGAGGTGGTGGTGGCTGCTCCTTCCGGACGAGGATGACGACTGCACCTACAGCTACACCATGGAAGG
TGACGGCGCCCCCTGGGCCCCAACAGCACTGTCTGGTGCACAAAGAAGGACTGCCCTCCGGGCTCCTTCTGGTG
GCTCATCCCCCTGCTCCTCCTCCTGCGCTCCTGGCCCTGCTACTGCTGCTATGCTGGAAGTACTGTGCCCTG
CTGCAAGGCCTGCCTGGCACTTCTCCCGTGTGCAACCGAGGTACATGGTGGGCTTTAAGGAAGACTTACAT
GCTGCGGGAGAACCTGATGGCCTCTGACCATTGGACACGCCCATGCTGCGCAGCGGGAACCTCAAGGGCCGTGA
CGTGGTCCGCTGGAAGGTACCAACAACATGCAGCGGCCTGGCTTTGCCACTCATGCCGCCAGCATCAACCCAC
AGAGCTGGTGCCCTACGGGCTGTCTTGCGCCTGGCCGCTTTTGACCGAGAACCTGCTGAAGCCTGACACTCG
GGAGTGCGCCCAGCTGCGCCAGGAGGTGGAGGAGAACCTGAACGAGGTCTACAGGCAGATCTCCGGTGTACACAA
GCTCCAGCAGACCAAGTTCCGGCAGCAGCCCAATGCCGGGAAAAAGCAAGACCACACCATTTGTGGACACAGTGT
GATGGCGCCCCGCTCGGCCAAGCCGGCCCTGCTGAAGCTTACAGAGAAGCAGGTGGAACAGAGGGCCTTCCACGA
CCTCAAGGTGGCCCCCGCTACTACACCCTCACTGCAGACCAGGACGCCCGGGCATGGTGGAGTTCCAGGAGGG
CGTGGAGCTGGTGGACGTACGGGTGCCCTCTTTATCCGGCCTGAGGATGACGACGAGAAGCAGCTGCTGGTGG
GGCCATGCAGCTGCGCGCAGGCACTGCCACCCTCGGCCGCGCCTGGTAAACATCACCATCATCAAGGAGCAAGC
CAGAGACGTGGTGTCTTTGAGCAGCCTGAGTTCTCGGTACGCCGCGGGGACCAGGTGGCCCGCATCCCTGT
CCGGCGTGTCTGGACGGCGGGAAGTCCCAGGTCTCTACCGCACACAGGATGGCACCGCGCAGGGCAACCGGGA
CTACATCCCCGTGGAGGGTGAGCTGCTGTTCCAGCCTGGGGAGGCCTGGAAAGAGCTGCAGGTGAAGCTCCTGGA
GCTGCAAGAAGTTGACTCCCTCCTGCGGGGCGCCAGGTCCGCCGTTTCCACGTCCAGCTCAGCAACCCCTAAGTT
TGGGGCCACCTGGGCCAGCCCCACTCCACCACCATCATCATCAGGGACCCAGATGAAGTGGACCGGAGCTTCAC
GAGTCAGATGTTGTATCAGCCACCCCTCACGGCGACCTGGGCGCCCCGAGAACCCCAATGCTAAGGCCGC

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[illegible]

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FIGURE 4964

MAGPRPSPWARLLLLAALISVSLSGTLANRCKKAPVKSCTECVRVDKDCAYCTDEMFRDRRCNTQAELLAAGCORE
SIVVMESFQITEETQIDTTLRRSQMSPQGLRVLRPGEERHFELEVFEPLSPVDLYILMDFSNSMSDDLNLK
KMGQNLARVLSQLTSDYTIGFGKFVDKVSVPQTDMRPEKLKEPWPNSDPPFSFKNVISLTEDVDEFNRKLQGERI
SGNLDAPEGGFDAILQTAVCTRDIGWRPDSTHLLVFSTESAFHYEADGANVLGIMSRNDERCHLDTTGTYTQYR
TQDYPSVPTLVRLAKHNIIPIFAVTNYSYSYIEKLHTYFPVSSSLGVLQEDSSNIVELLEAFNRIRSNLDIRAL
DSPRGLRTEVTSKMFQKTRTGSFHIRRGEVGIYQVQLRALEHVDGTHVCQLPEDQKGNHILKPSFSDGLKMDAGI
ICDVCTCELQKEVRSARCSFNDFVCGQCVCSEGSQTCNCSTGSLSDIQPCLREGEDKPCSGRGECQCGHCVC
YGEGRYEGQFCEYDNFQCPRTSGLCNDGRGRCSMGQCVCCEPGWTGPSCDCPLSNATCIDSNGGICNGRGHCECGR
CHCHQQSLYTDITICEINYSIAIHPLCEDLRSCVQCQAWGTGEKKGRTCEEENFKVKMVDDELKRAEEVVVRCSEFRD
EDDDCTYSYTMEGDGAPGNSTVLVHKKKDCPPGSGFWWLIPLLLLLLPLALLLLLCWKYCACCKACLALLPCCN
RGHMVGFKEDHYMLRENLMASDHLDTPMLRSGNLKGRDVVRWKVTNNMQRPGFATHAASINPTELVPYGLSLRLA
RLCTENLLKPDRTRECAQLRQEVEENLNEVYRQISGVHKLQQTFRQQPNAGKKQDHTIVDVTVLMAPRSAPKALLK
LTEKQVEQRAFHDLKVAPGYITLADQDARGMVEFQEGVELVDVRVPLFIRPEDDDEKQLLVEAIDVPAGTATLG
RRLVNITIIKEQARDVVSFEQPEFSVSRGDQVARIPVIRRVLDGGKSQVSYRTQDGTAGQNRDYIPVEGELLFQP
GEAWKELQVKLLELQEVDSLLRGRQVRRFHVQLSNPKFGAHLGQPHSTTIIIRDPDELDRSFTSQMLSSQPPPHG
DLGAPQNPNAKAAGSRKIHFNLPPSGKPMGYRVKYWIQGDSESEAHLLDSKVPVELTNLYPYCDYEMKVCAYG
AQGEGPYSSLVSCRTHQEVSEPGRALFNVVSSTVTQLSWAEPATNGEITAYEVCYGLVNDNRPIGPMKKVLV
DNPKNRMILLIENLRESQPYRYTVKARNGAGWGPEREAIINLATQPKRPMIPIIPDIPVDAQSGEDYDSFLMYS
DDVLRSPSGSQRPVSDDTGCGWKFEPLLGEELDLRRVTWRLLPELIPRLSASSGRSSDAEAPTAPRTTAARAGR
AAAVPRSATPGPPGEHLVNGRMDFAFPGSTNSLHRMTTTSAAAYGTHLSPHVPHRVLSTSSTLTRDYNLSLTRSEH
SHSTTLPRDYSTLTSVSSHDSRLTAGVPDTPTRLVFSALGPTSLRVSWQEPRCERPLQGYSEYQLLNGGELHRL
NIPNPAQTSVVVEDLLPNHSYVFRVRAQSQEGWGREGVIITIESQVHPQSPLCPLPGSAFTLSTPSAPGPLVFT
ALSPDSLQLSWERPRRPNGDIVGYLVTCEMAQGGGPATAFRVDGDSPE SRLTVPGLSENVYPYKFKVQARTTEGFG
PEREGIIITIESQDGGPFPQLGSRAGLFQHPLQSEYSSITTTHTSATPEPFLVDGLTLGAQHLEAGGSLTRHVTQEF
VSRTLTTSGLTSTHMDQQFFQT

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FIGURE 4965A

CAAGGGGCCAGGACCCTGAGTTTTATTGGGCCTTGACTAATGTGCCTCCTCATCTGTGTCTCACCCCTCATTGTG
GACTTAGGTTTCAGGTATCTCAGAGGCAGACCCACAGGCTCTGCTCCAGGCCATGAAGGACCTGGACGGCATGGA
TGCTGATATCTTAGGTCTGAAGAAATCTAATTCAGCCCCCTAGCAAAAAAGCTGCAAAGGACCCCTGGGAAAGGAGA
GCTGCCCAACCAACCCCAAGCCTGCAGGGGGTGCCATTCCCAACCAAGAAGTCACTTCCGTCTCCAGCAGCTCTGG
GCATCAGAACAGGAGGTTTTCTCTGAAGACTTGGAAGACCCATTGAGAGGACTTCTCTCTATGATGAAGGAGG
AATCACCAGCAGCCGCTGTGACACAGAGTAAAAACAGCTTCTGACAAGAGCCCCAGCACAGTGAGAGATCAAGG
TCCCTCTATTCTCTAACTCCTGGGGACACCCCATCCGAAAAAAGAAGAATTGTTGTTTTGATGATGGGGATGA
CATCATGGCCACCTTGGGGTTTGAGACAGCCCCAAAGCAGAGAAGAGGCAGATAGGAGACCAGGAAGGGCCTCG
CCCTGCTCGCTCCACGCTGGATGAGCTGCTGGGTGCGAGGCATGGCCACCAAACTCCTGGCCCGCCGGGCACCGG
GGAGCACAGGGAGTTCAAGCTAGACAAGTAAGTACCAGAGGCCACAGGACAGTGAAGATATGTGGGGTGACGAGGA
CTTCACCTTTGGAGCCTATCAGCCCACTGTGGTCTCTCTGAGGGCCGGCAGTCCCGCCGGCAGTCTGTCTAGTAG
GTTCTTCGACAGCAGTGGCGCAGACCCCAAGGGAGAACCAGGCTCCAAACAGAGCCCTCCAATGGCTTCCAGCCC
CATCCAGCCCAGGAAGGGAGGAGCTGACTGGTTGGGCCTCAAGGACGAGGACTTGGACCTGTTCCCTGCCTCACC
CACCAGAGAGGCCCATCGGGAAAGTTCAGTGCTGTACGCCCCCTCAGTGCCCTCCTCTGCGAGCCAGCACTCCAC
GCCAGCTGGGCTGCCCCCTCCAGGGCAAAGCCACCAACTGAAGGTGCAGGGTCCCCTGCCAAAGCCAGCCAGGC
TTCCAAGCTGCGAGCCTCCAAGGAGGAGAAAAGAGGACTGGCTGAGCCATGCCCTGTCTCGGAAGAAGTCCCAAGG
CCTGGCCAGAGAGCAGCATGCTGGGACCTCTGAGGGCCTGCATTTGGCGGGGACAGCGGGCCATCCCCCTTCTGG
CAGCCTGACCTGGGCCTTCTGTACCTTACCTTGAACGCTGCCTTTCTCAGCCAACCTCTCACCAGCACACAA
GGGCTTGAGCACGAGCTGCTGGAGGGAGTTCTGGAACAACCTGCACGAGAAAGACCGTGTGTCTAGGCCTGGTGTCT
TCGGGGTCCCCGTGACTCAGAACCATGCCGCTCAGCACTCCCTACAGGTTCCCCAAAGAGGGGAACAGCCCTT
GGAGACCTCTCAGCCACTGAGCCTGCCACGTGTTTCCCGAGCACCCAGAAACCCACAGAGCCTTCCGTGCCCGTC
CAGCCCTGCTCCAGAGTCCCTGGCCCGGAGCCTGCTGCCGAGCACAGAATACCAGAAGCAGCTCCTGGCAGCA
CAGGTGCAACTTCAGTGACGCCCCGCTGAGCTCCAGGCCGAGCTGCTGCATAGCCAGGCCCGGCTGGCAGAGCTG
GAGGCCCAGGTGCGGAAGCTGGAGCTAGAACGGGCCCAGCATGAGCTGCTGCTGGGGAGTCTGCAGCAGCAGCAC
CAGGCAGACCTGGAGCTCATCGAGAGTGACACAGAAGCCGCATCAAGGTGCTAGAAACATCGTACCAGCAACGG
GAGGAGCGGCTCCGGAGAGAGAACGAAGAGCTGTACGCTCGGTATCTGTCTGAGTGCCAGGAGGCCGAACAGGCC
CGTGCTGAGCTTACGGCCCAGCAACAGCGGCGCTTGGCGGCCATAGCGCAGGAGAAGGACCAGGAAATGGAGCGG
CTCCGGGAGCTGCAGCGGGCGTCCATCCTAGACATGCGCAGAGACCACGAGGAGCAGCTGCAGCGGCTAAAGCTG
CTGAAGGACCGAGAGGTGATGCGGCCACCACTGCCACCTCCCACACACGGTCCCTGAATAGCATCATCCACCAG
ATGGAGAAGTTCTCCAGCAGCCTGCACGAGTTGTCTCCCGCGTGGAGGCCTCGCACCTCACCACCTCCCAGGAG
CGGGAGCTGGGGATCCGGCAGCGTGACGAGCAGCTGCGGGGAGCGGCTGGCCAGCAGCAGCGGGACATGGAGGA
GGAGCGGAGCCGGCAACAGGAGTATCGGGAAGATGGAGGCACGGCTGAATGAGCAGAGCCGGCTGCTGGAGCA
GGAACGCTGGCGGGTGACTGCCGAGCAGTCCAAGCGGAGTCCATGACGCGCGCCTAGAGGAGCAAGGAAGGT
CACGGCCCAGCAGATGGCCATGGAAAGGGCGGAGCTGGAACGGGCCAAGAGCGCCTTGCTGGAGGAGCAGAAGTC
TGTCATGCTCAAGTGCGGGGAGGAGCGGCGGCGCTGGCTGCCGAGTGGGCGGAGTTCTCCGCGCAGCAAAAGCT
GAGAGCAGGCTGAGCTGAAGATCAGGGCCAGCGAGCTCCGGGCCGAGGAGAAGCAGCTGGCAGCGGAGAGAGCAG
CCCTGGAGCAGGAGCGGCAGGAGCTGCGGCTGGAGAAGGAGAGGATCAACGCCACCGCCCTGCGTGTCAAGCTCC
GCGCCGAGGAGGTGGAGAGCATGAGCAAGGTGGCCTCCGAGAAGTACGAGGAGGGGAGCGGGCATTGCGCGAGG
CCCAGCAGGTGCAGGCAGAGCAGCAGGCCCCGTTGAGGCGGTGCAGCAACAGCAGGAGCGGCTGCGGAAGCAGG
AGCAGCACATGCACCAGGAGCATCTGAGTCTGGCCAGCAGAGGCTGCAACTGGACCGCGCACGACAGGACCTGC
CCTCTAGCCTCGTGGGTCTGTTCCCCAGGGCCCCAGGGCCCTGCAGCCTCCAGCCAGAGTGCCCTCATGCCTCCTG
CTCCCACCAACCGTTGGTGCAGCCAGCCGCCAACTGGCCTGGACCCAGCCCTTGCACCTCCATGCCAGGCTGG
CACTGCTGAGGCACATGGCAGAGCAGCACCTGCGGTCTGCGGTGGCACCTGGCAGCTGGACCACAGCCAGGAGAA
GGGTACTATTAGCCCTGCTTCAAACATGCAGAACTGAGGCCCGGGGAGATTAAATAACCTGCCTGAAATGACAC
CGTCTTGGGCCCGGCACACCCCCCTGGGGCCGATGCCAACAGTGACATCGACTTGAGCAACCTGGAGCGGCT
GGAGAAGTACCGGAGCTTCGACCGCTACCGGCGCCGAGCAGAGCAGGAGGCGCAGGCCCGCACTGGTGGCGGAC
CTACCGAGAGTATTTGGGGGAGAAGACAGATCCCAAAGAGAAGATTGATATTGGGCTGCCTCCACCCAAAGTCTC
CCGGACCCAACAGCTACTGGAACGGAAACAGGCCATCCAGGAGCTTCGGGCCAATGTGGAAGAGGAGCGGGCTGC

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FIGURE 4965B

CCGCCTCCGCACAGTGTCCCGCTGGATGCCGTGCGGGCCGAGTGGGAGAGGACCTGTGGCCCCCTACCACAAGCAG
CGTCTGGCTGAGTATTACGGCCTCTACCGAGACCTGTTCCACGGTGCCACCTTTGTGCCCCGAGTCCCCCTGCAC
GTGGCCTACGCTGTGGGTGAGGATGACCTGATGCCTGTGTACTGTGGCAATGAGGTGACTCCAACCGAGGCTGCC
CAAGCGCCAGAGGTGACCTATGAGGCAGAAGAGGGCTCCTTGTGGACGTTGCTACTCACTAGCTTGGATGGGCAC
CTGCTGGAGCCAGATGCTGAGTACCTCCACTGGCTGCTAACCAACATCCCGGGTAACCGGGTGGCTGAAGGACAG
GTGACGTGTCCCTACCTCCCCCCTTCCCTGCCCCGAGGCTCCGGCATCCACCGTCTTGCCTTCCTGCTCTTCAAG
CAGGACCAGCCGATTGACTTCTCTGAGGACGCACGCCCCCTACCCCTGCTATCAGCTGGCCCAGCGGACCTTCCGC
ACTTTTGATTTCTACAAGAAACACCAAGAAACCATGACTCCAGCCGGCTTGTCTTCTTCCAGTGCCGCTGGGAT
GACTCCGTCACCTACATCTTCCACCAGCTTCTGGACATGCGGGAGCCGGTGTGTTGAGTTTCGTGCGGCCGC

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FIGURE 4966

MAPKTKKGCKVTLPEKPVKLASHTRDTTGVSQMFPSSKARTKSLLGDDVFSTMAGLEEADAENVSGISEADPQALL
QAMKDLDGMDADILGLKKSNSAPSKKAAKDPGKGELPNHPKPAGGAIPTKKSLPSPSSSGHQNRFFSSEDLPL
RGLLSYDEGGITKQPPVTQSKTASDKSPSTVRDQGPSIPLTPGDTPIRKKEELLFDDGDDIMATLGFGDSPKAEK
RQIGDQEGPRPARSTLDELLGRGMATKLLARPGTGEHREFKLDKKYQRPQDSEDMWGDEDFTFGAYQPTVVSSEG
RQSRQSVSRFFADSGADPKGEPGSKQSPPMASSPIQPRKGGADWLGLKDEDLDLFPASPTREAHRESSVPVTPS
VPPPASQHSTPAGLPPSRAKPPTGAGSPAKASQASKLRASKEEKEDWLSHALSRKKSQGLAREQHAGTSEGLHL
AGTAGHPPSGSQPLTSTQGLEHAAAGGSSGTTARERPCVRPGVSGSPVTQNHAAASALPTGSPKRGTAPGDLSTATE
PATCFPSTQKPTEPSVPVQPLLPESLARSLLPSTEYQKQLLAAQVQLQCSPAELQAELLHSQARLAELEAQVRGS
GAVGAGGRVATGGDTESGWKLPQEGGRAVGTGQRGVQPPPLPGCWPSCCLFGAEAGARTGPA

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FIGURE 4967

CCCGAGCATCCC GCGCCGACGGGGCTGTGCCGGAGCAGCTGTGCAGAGCTGCAGGCGCGCGTCA**ATGG**CTGCTTTG
AGACAGCCCCAGGTCGCGGAGCTGCTGGCCGAGGCCCCGGCGAGCCTTCCGGGAGGAGTTCGGGGCCGAGCCCGAG
CTGGCCGTGT CAGCGCCGGGCGCGTCAACCTCATCGGGGAACACACGGACTACAACCAGGGCCTGGTGCTGCCT
ATGGCTCTGGAGCTCATGACGGTGCTGGTGGGCAGCCCCGCAAGGATGGGCTGGTGCTCTCTCCTCACCACCTCT
GAGGGTGCCGATGAGCCCCAGCGGCTGCAGTTTCCACTGCCCCACAGCCCAGCGCTCGCTGGAGCCTGGGACTCCT
CGGTGGGCCAACTATGTCAAGGGAGTGATTCACTACTACCCAGCTGCCCCCTCCCTGGCTTCAGTGCAGTGGTG
GTCAGCTCAGTGCCCTGGGGGGTGGCCTGTCCAGCTCAGCATCCTTGGAAGTGGCCACGTACACCTTCCTCCAG
CAGCTCTGTCCAGACTCGGGCACAATAGCTGCCCCGCGCCAGGTGTGT CAGCAGGCCGAGCACAGCTTCGCAGGG
ATGCCCTGTGGCATCATGGACCAGTTCATCTCACTTATGGGACAGAAAGGCCACGCGCTGCTCATTGACTGCAGG
TCCTTGAGACCAGCCTGGTGCCACTCTCGGACCCCAAGCTGGCCGTGCTCATCACCAACTCTAATGTCCGCCAC
TCCCTGGCCTCCAGCGAGTACCCTGTGCGGCGGCGCCAATGTGAAGAAGTGGCCCGGGCGCTGGGCAAGGAAAGC
CTCCGGGAGGTACAAC TGGAAGAGCTAGAGGCTGCCAGGGACCTGGTGAGCAAAGAGGGCTTCCGGCGGGCCCCGG
CACGTGGTGGGGGAGATTGCGCGCACGGCCAGGCAGCGGCCGCCCTGAGACGTGGCGACTACAGAGCCTTTGGC
CGCCTCATGGTGGAGAGCCACCGCTCACTCAGAGACGACTATGAGGTGAGCTGCCCAGAGCTGGACCAGCTGGTG
GAGGCTGCGCTTGCTGTGCCTGGGGTTTATGGCAGCCGCATGACGGGCGGTGGCTTCGGTGGCTGCACGGTGACA
CTGCTGGAGGCCTCCGCTGCTCCCCACGCCATGCGGCACATCCAGGAGCACTACGGCGGGACTGCCACCTTCTAC
CTCTCTCAAGCAGCCGATGGAGCCAAGGTGCTGTGCTTGT**AG**AGGCACCCCCAGGACAGCACACGGTGAGGGTGCG
GGCCTGCAGGCCAGTCCCACGGCTCTGTGCCCCGTGCCATCTTCCATATCCGGGTGCTCAATAAACTTGTGCCT
CCAATGTGGTA

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FIGURE 4968

MAALRQPQVAELLAEARRAFREFGAEP ELAVSAPGRVNLIGEHTDYNQGLVLPMALELMTVLVGSPRKDGLVSL
LTTSEGADEPQRLQFPLPTAQRSLEPGTPRWANYVKGVIQYYPAAPLPGFSAVVVSSVPLGGGLSSSASLEVATY
TFLQQLCPDSGTIAARAQVCQQAHSFAGMPCGIMDQFISLMGQKGHALLIDCRSLETSLVPLSDPKLAVLITNS
NVRHSLASSEYPVRRRQCEEVARALGKESLREVQLEELEAARDLVSKEGFRRARHVVG EIRRTAQAAAALRRGDY
RAFGRLMVESHRS LRDDYEVSCPELDQLVEAALAVPGVYGSMTGGGFGGCTVTILLEASAAPHAMRHIQEHYGGT
ATFYLSQAADGAKVLCL

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FIGURE 4969

GGTCGTTTCGTTGGGCGGTGCTGGTTTTTCGCTCGTCGACTGCGGCTCTTCCTCGGGCAGCGGAAGCGGCGCGGCG
GTCGGAGAAGTGGCCTAAAACCTTCGGCGTTGGGTGAAAGAAAATGGCCCGAACCAAGCAGACTGCTCGTAAGTCC
ACCGGTGGGAAAGCCCCCGCAAACAGCTGGCCACGAAAGCCGCCAGGAAAAGCGCTCCCTCTACCGGCGGGGTG
AAGAAGCCTCATCGCTACAGGCCCGGGACCGTGGCGCTTCGAGAGATTCTGTCGTTATCAGAAGTCGACCGAGCTG
CTCATCCGGAAGCTGCCCTTCCAGAGGTTGGTGAGGGAGATCGCGCAGGATTCAAACCGACCTGAGGTTTCAG
AGCGCAGCCATCGGTGCGCTGCAGGAGGCTAGCGAAGCGTACCTGGTGGGTCTGTTTGAAGATACCAACCTGTGT
GCCATCCACGCTAAGAGAGTCAACATCATGCCCAAAGACATCCAGTTGGCTCGCCGATACGGGGAGAGAGAGCT
TAAGTGAAGGCAGTTTTTATGGCGTTTTGTAGTAAATTCGTAAAATACTTTGGTTTAATTTGTGACTTTTTTTG
TAAGAAATTGTTTATAATATGTTGCATTTGTACTTAAGTCATTCCATCTTCACTCAGGATGAATGCGAAAAGTG
ACTGTTTACAGACCTCAGTGATGTGAGCACTGTTGCTCAGGAGTGACAAGTTGCTAATATGCAGAAGGGATGGGT
GATACTTCTTGCTTCTCATGATGCATGTTTCTGTATGTTAATGACTTGTTGGGTAGCTATTAAGGTACTAGAGTT
GATAAATGTGTACAGGGTCCTTTTGCAATAAAACTGGTTATGACTTGATCCAAGTGTTTAACAATTGGGGCTGTT
AAGTCTGACCATACATCACTGTGATAGAATGTGGGCTTTTTCAAGGGTGAAGATACAAGTCTTAACCACAGTGTA
ACTTACAGTTTCCTTTAAAAAAGTAAACCTGGCAGCTATAGAATACACTATGTGCATTTATAATAGCT
ATTTTATATATTGTAGTATCAACATTTTTAAATTAAATGTTTTACATTACAAAGTGGTGGGGAGTCTTGTCATTA
AGGTGTGTGTAATTTAGAGTCCAGTTGGTTTTCTTCTGACTGCACTTGTTCTCATAGTAGTAAATGCTATGCGC
ATTTATACCTTGATAAGTCCTCATTCTACCACATGTTAACCCTCTAGCTGATAATGCAAACACTAAGTGGGGGA
TTTTATTTATAAGGGCTCTAGAAAAACGAGTTATTACACCAGCATCATCTTAACATAACATTCTGAAGTAGTTA
GTGCAGCTTTTCATTGTTGTGTGGTTGGTCTCATAACTAGGTTGAGTTTTTCTCCTCTGCTGAGGAAACAGTA
CCGAAGTTCTTTTCTTGTTGGCATTGTATTATAAAAACTTGGTGTGGGGGAGGAGCACAAACTCCAGCCACT
GAACCTCTGCCAATTAAGATGGTGTGGGTTAGGTTACATCTGGTTACTGTCCTGGGAAAATCATTTTTATAGAG
ATGGCCTTCCAAGTGGTTTTAAATTTACTGAAGTTTTTAGGTCAATTATGTATGTTGACTAAATTTACAAATAA
ACTTGTTTTATCC

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FIGURE 4970

MARTKQTARKSTGGKAPRKQLATKAARKSAPSTGGVKKPHRYRPGTVALREIRRYQKSTELLIRKLPFQRLVREI
AQDFKTDLRFQSAAIGALQEASEAYLVGLFEDTNLCAIHAKRVTIMPKDIQLARRIRGERA

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FIGURE 4971A

GAAGAGGCAGGAAGACAAGACCATGTCGAAGGGCCCCGGGCCCCGGCGGCTCCGCAGCTTCTCGGCGCCCCCGGC
CGCTACCGCTCAGGTGCTGCAGGCACAGCCCCGAGAAACCGCAGCACTACACGTACCTGAAAGAATTCCGCACAGA
GCAGTGCCCACTCTTTGTGCAACACAAATGCACGCAGCATCGGCCCTACACCTGCTTCCACTGGCACTTCGTGAA
CCAGCGGCGCCGCGGTCCATCCGCCGTGCGGACGGCACCTTCAATTACAGCCCTGACGTCTACTGCACCAAGTA
CGACGAGGCTACAGGCCTTGCCCGGAGGGCGACGAGTGCCCATTCCTGCACAGAACCACAGGGGACACTGAGCG
CAGGTACCACCTTCGTTACTACAAAATGGAATCTGCATCCACGAGACAGACTCGAAAGGCAACTGCACCAAAAA
CGGCCTGCACTGCGCTTTTGGCCACGGGCCCCATGACCTCCGCTCCCCTGTCTACGACATCAGGGAGCTTCAGGC
CATGGAGGCCTTGCAAGATGGCCAGACCACGGTAGAGGGGAGCATAGAGGGCCAGTCGGCTGGGGCTGCGAGCCA
TGCCATGATAGAAAAGATCCTCAGCGAGGAGCCTCGGTGGCAAGAGACTGCTTATGTGCTGGGGAACTATAAGAC
GGAGCCTTGCAAGAAGCCCCCGGGCTGTGCCGCCAAGGCTATGCCTGTCCCTACTACCACAACAGCAAGGACCG
GCGGCGGAGCCCCCGGAAGCACAAATACAGGTGCTCTCCATGTCCAAACGTCAAGCACGGGGATGAGTGGGGAGA
CCCTGGCAAGTGTGAGAACGGAGACGCCTGCCAGTACTGCCACACCCGCACCGAGCAGCAGTTCACCCCCGAGAT
CTACAAGTCCACCAAGTGAACGACATGCAGCAGTCGGGCAGCTGTCCCCGAGGACCCCTTCTGCGCCTTTGCCCA
CGTAGAACAGCCACCCCTGAGTGACGACCTGCAGCCTTCCTCAGCTGTGTCCAGCCCCACCCAGCCAGGTCTGT
CCTGTACATGCCATCTGCCGCCGAGACTCGGTGCCTGTGAGCCCCCTCCAGCCCGCATGCCCTGACCTCAGTGC
CCTCCTCTGTAGAAACAGCAGCCTAGGCAGCCCGTCTAACCTCTGCGGCTCCXCCACCGGGCTCCATCAGGAAGC
CCCCAACTTGAGGGCATCGTCTTCCCTGGGGAGTCTGGCCTGGCCCCCTGGCAGCTATAAGAAGGCTCCCGGCT
TCGAGAGGGAAGACCAGGTGGGAGCCGAGTACCTGAAAAATTTCAAATGCCAGGCCAAATTAACACCCCACTCAT
TAGAGCCAGGAGTCAAGAGCAGCCTCTGCTTACGCCAAACAGGACATGCTGGGCATCCTCCCCGCAGGCAGCC
CCCTGACCTCAAGCATCTCTTAGTATCACCTCCAGCCTGGCAGCTACCCCCCTAGCCCACTGGGCACCAGCA
GCGTCCCCGGCATGAATGCAAACGCTCTGCCCTTCTACCCCCACAGCGACACGGTAGAGTCAGTCATAGAGTCTG
CTTTGGATGACCTGGACCTGAATGAGTTTGGCGTGGCCGCCCTGGAGAAGACTTTTGATAACAGCACAGTGGCCC
ACCCAGGAAGCATCACCATCGGCGGCAGCTTGCTGCAGAGCTCTGCACCCGTGAACATCCCCGGCTCCTTGGGCA
GCTCTGCCCTCCTTCCACTCAGCATCCCCGTCCCCCTCCCGTCAGCCTCTCCTCGCATTTCTTGCAGCAGCCCCAGG
GCCACCTGAGTCAGTCGGAAAAACACATTTTTGGGAACCTCAGCATCACATGGATCTTTGGGTCTGAACGGGATGA
ACAGCAGCATCTGGGAGCATTTTGCTCTGGAAGCTTCTCCCCGGGCACTTCCCCCGCTTTCTATCAGGGCCAG
GGGCTGCCGAGCTGGCCCCGACTTCGGCAAGAGCTGGATGAAGCCAACAGCACCATCAAGCAGTGGGAGGTCCT
GGAAGCAGGCCAAGCAGGCTTGTGATGCCTGGAAGAAAGAGGCGGAGGAGGCTGGTGAGCGGGCCAGTGCGGCGG
GCGCCGAGTGCGAGCTGGCCCCGGGAGCAGCGGGATGCACTGGAGGTGCAGGTGAAGAAGCTCCAGGAGGAGCTGG
AGCGGCTACACGCGGGGCTGAGCCCCAGGCCCTGCCCGCTTCTCCGACCTGGAGGCGCTCTCACTCTCCACCC
TCTACTCCCTCCAGAAACAAGTGCAGGCCCCACCTGGAACAAGTGGACAAGGCCGTGTTCCACATGCAGTCGGTGA
AATGCCTTAAGTGTGAGGAACAGAAGCGGGCAGTGCTGCCGTGCCAACACGCTGCGCTGTGTGAGCTCTGCGCTG
AGGGCAGCGAGTGCCCCATCTGCCAGCCTGGCCGGGCCCCACACCTCCAGTCGTGACCCTGCAGGCCTGGCCCAG
CCTGGCCAGATCTTCTCACTAGGACTTTTTAAAGTATATATATATATATGAATATATATATATATGTGTATGT
ATGTATGTATATGTATATGATTATGTATATGTATACATTTCCGTATGTATGTATATGTATACATTTCCGTATGTG
TGCAGGTATGCGTGGTGGTGTGGACAGTGTCTGTGTGTATATCTGTACATAGATATAGACACACACTTTAAAGA
CTTACCAAGCACTTTTTAAAGAAGAAACTATTTTGAGTCTCTCCCTACCCACTCCCTGCCCTTCCCACTGCAG
AGATGACATCCCTCTTCTCCCACTGGCCTTTTGGCAGAGAATCTGGTCTGTCTCTTTTTTAATGTAGGAACATA
ACTATTTTTAACTTCTTCTGGGGCCTGAGCAGGGAAGGGTGGGACTGGAAGGCATAAGGGGAAGGGAGAAGCC
CTCAGGGCAGGCCCTGCTCCCCCTACCTCCTTGCCAGGGCAAGGGTGGAGTGTGGAAGACGTGGGTCCCCCAGAG
CAGGCCTGGCCCCCAGCTXGXTGAGGGCCTCAGGGAGGCCGAGGGGGAGTGTGGGGGTCTCAGCTGGCTTAGC
TCCTAAGTTTACCAAATGTTAATTTAGTCTTGGGGAGAACAGCAAGGGCTGGAGGCCAGTGTGCAGGGCCAGCC
CCACTCCTGACACCTGGGCCCTTGAAGCTCCTTGAGGGGCAAGGCCCAGGAGTTCAGCCCTCAGGTTCTCTGAGG
GTCCACCCTCAGTCTTCCCCCGCCGCCCTCCCCGACTCCCCACAAGAGCCTCCCTGGCCCCAGGGCCGCCCT
ACCAGGCTGGTACTCATTCTATGACCACCGCCCCCAACCAGCTGCCCCCAGCTCTCCCTGCCCCCTCCCTCTCT
GGCAGCTAGCAGGGCAATTGGCGGGGAGGAGTGGGACTGAGGACTGAGGACCAAGGGGGCCCAGGCCCTGCCCT
CCTACCCGGAGGGGCTCCGTTTGATTCTTGGTGTCTCTGAGTGCAGCTGGTGTCCCGCCCTGTCTGGGCGG
ACGCCTGTGTGCGTGTGTGTGCTGTCCAGTGTATATTGTGTCTTAGCTTCCATTTAAAAAATTGTCTGTAC

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FIGURE 4971B

AGAGAGAGATGCAGCAGGGGCGGGAGGGCAGAGTGGGCGGAGGGGAGCAGCCGCACCCCCAGCACCGGGTGTCTG
CGGTAGGAACAAGAGGGCTGAGAGGGTCTGGTCCTGGCCCAGGCTCCCCCTTGGGCTCAGCACGAAAGGGCTTTC
AATGAATTAAGTGAACCTTTTTCTTTTTTACAAAAATGCAAAATCAACAAAGCTCCAAACCTATTGGAAATA
AAATATGAACCTTGC

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FIGURE 4972

MSKGP GPGGSAASSAPPAATAQVLQAQPEKPOHYTYLKEFRTEQCPLFVQHKCTQHRPYTCFHHWFVNQRRRSI
RRRDGTFNYS PDVYCTKYDEATGLCPEGDECPFLHRTTGD TERRYHLRYK TGICIHETDSKGNCTKNGLHCAFA
HGPHDLRSPVYDIRELQAMEALQNGQTTVEGSIEGQSAGAASHAMIEKILSEEPRWQETAYVLGNYKTEPCKKPP
RLCRQGYACPYHNSKDRRRSPRKHKYRSSPCPNVKHGDWGDPGKCENG DACQYCHTRTEQQFHPEIYKSTCN
DMQQSGSCPRGPFCAFAHVEQPPLSDDLQPS SAVSSPTQPGPVLYMP SAAGDSVPVSPSSPHAPDLSALLCRNSS
LGSPSNLCGSXTGLHQEAPKPGGHRLPWGVWPGPWQL

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FIGURE 4973

TGCGTTTTGAGTCTCGGGACCCCTGTTGGAGAGACTATGCGGCTCAACAAGAATCACTCGGAGGGCGGCGGAGTG
ATCGTCAATAACACCGAGAGCATCCTAATGTCCTATGATCACGTGGAACACACATTCAATGACATGAAGAACGTG
CCAGAAGCCTTCAAAGGGACCAAGAAAGGCACTGTCTACCTTACCCCTTACCGGGTCATCTTTCTGTCCAAGGGC
AAGGATGCCATGCAGTCCTTTCATGATGCCATTTTATCTCATGAAAGACTGTGAGATCAAGCAGCCCGTATTTGGT
GCAAACCTACATCAAGGGAACAGTGAAGGCGGAAGCGGGAGGTGGCTGGGAAGGCTCTGCTTCTACAAGTTGACT
TTCACGGCAGGGGGCGCCATTGAGTTCGGACAGCGGATGCTCCAGGTGGCATCTCAAGCCTCCAGAGGTGAAGTC
CCCAGTGGAGCCTATGGCTACTCTTACATGCCCAGCGGGGCTATGTCTATCCCCCGCCAGTCGCCAATGGAATG
TACCCCTGCCCTCCTGGCTACCCCTATCCACCGCCCCCACCTGAGTTCTATCCAGGACCCCCCATGATGGACGGG
GCCATGGGATACGTGCAGCCCCCACCACCGCCCTACCCTGGGCCCATGGAACCTCCGGTCAGCGGCCCCGATGTC
CCCTCCACTCCTGCAGCCGAAGCCAAGGCCGCGAGAAGCAGCGCCAGCGCCTATTACAACCCAGGCAATCCTCAC
AACGTCTACATGCCACGAGCCAGCCGCGCCACCTCCCTACTACCCACCGGAAGATAAGAAGACCCAGTACGCC
CTCCTGCCTCCCTGCCTCCCACCCCTCATCTCTCTACCCTACCCCTCCCATCGGGGCTGTGCTGGGGCTTGGGGAG
GGGAGGGGGCGCCTTGTTCTCCCTCCAGGTCTGATCATAAACAATTACCAGGAACTAGCATTGTGGGACATTAGG
GCCCCGGCCTCGGGAGAGGTGCCGCCAGCTTCCCATGCCAGCCCGGAGCCACAGTGCTGCCAGCGTACCTC
CCTACCGTCTGGGGCTCTTCTGGGAGCACGGAGCATCCCCTGTTCCCTGTTTCACTCTCAGCTTCTCCCCCTCGAA
GGGACTCTCTGGCCACCTCCTCCACCGCAGTCCAGCTCCCTCAGTCTGGCACCCACTGCTACACTCAGCCTCATG
AGCCACTTCAGACCAGCCAGAAGGAGCTTCCCTGACTGGAACCAGAGAATGCATGTCTGTCCACTTGGTGGCTGCT
GGGTGGGGCCGGGAACAAGGGCCCCCTGACCCTGTGTGCTGGCCGGGACCTGCCACCAGCCCCCAGCCTGCTTCT
TCCCCTTAAGCTTTGTGCCCTGGATGCGCTAACATTCACTCTTGTGTTGTCCCTGGACTGGCCATGAAGTGAGGA
GATGTTATTTAAAGAGAATTCCCTATTTATTTGACAAAAATCCAGTTAATATATTAATGTGAAATAAACCCCTG
TTTGACCTCG

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FIGURE 4974

MALNKNHSEGGGVIVNNTESILMSYDHVELTFNDMKNVPEAFKGTKKGTVYLTPYRVIFLSKGKDAMQSFMMPFY
LMKDCEIKQPVFGANYIKGTVKAEAGGGWEGSASYKLTF TAGGAIEFGQRM LQVASQASRGEVPSGAYGYSYMP S
GAYVYPPPVANGMYPCPPGYPPPPPEFYPGPPMMDGAMGYVQPPPPYPGPMEPPVSGPDVPSTPAAEAKAAE
AAASAYYNPGNPHNVYMP TSQPPPPPYPPEDKKTQ

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FIGURE 4975

GGTGC GCAAGGGCACGGACCTCGGAGCTCTCCCCGTTCCCCCGCCGCCATGAACGCCGCTCGCACCGGCTACCG
AGTCTTCCTCGCCAACTCCACGGCCGCCTGCACGGAGCTGGCCAAGCGCATCACAGAGCGCCTTGGTGCTGAATT
GGGGAAGTCTGTTGTATATCAAGAGACCAATGGAGAAACAAGAGTTGAAATAAAAGAATTTGTTTCGTGGCCAAGA
TATTTTCATTATACAGACAATACCCAGAGATGTGAATACAGCTGTGATGGAGTTGCTCATCATGGCTTACGCACT
GAAGACTGCCTGTGCCAGGAACATTATTGGGGTCATCCCCTACTTCCCCCTACAGCAAGCAGAGCAAGATGAGGAA
GAGGGGTTCCATTGTGTGCAAGCTGCTAGCATCCATGCTGGCGAAAGCAGGTTTAACTCACATTATCACTATGGA
TCTTCATCAAAAGGAAATACAAGGCTTTTTTCAGCTTTCCTGTGGACAACCTTAGAGCCTCACCTTTCCTGCTTCA
GTATATCCAGGAAGAAATTCCAAATTACAGAAATGCAGTCATTGTAGCTAAGTCTCCTGATGCTGCAAAGAGGGC
CCAGTCCTATGCGGAGAGACTGCGTCTGGGTTTGGCCGTCATTACGGGGAAGCTCAGTGCACGGAACCTGGACAT
GGACGATGGTCGTCACTCCCCGCCTATGGTCAAAAATGCTACTGTGCACCCAGGCCTGGAGTTGCCATTGATGAT
GGCCAAAGAGAAGCCACCATAACTGTAGTTGGAGATGTTGGAGGCCGCATCGCAATCATCGTGGATGACATTAT
TGACGATGTGGAGAGTTTTGTTGCTGCCGCGGAGATCCTGAAAGAGAGAGGCGCCTATAAGATCTATGTTATGGC
CACCCACGGCACTCCTGTCTGCAGAGGCCCTCGCCTGATTGAGGAGTCTCCGTAGACGAGGTGGTGGTGACGAA
TACTGTCCCTCATGAGGTTTCAAGCTGCAATGTCCCAAGATAAAAGACTGTGGATATCAGTTTGATTCTTTCTGA
AGCCATTTCGGAGAATCCACAATGGAGAGTCCATGGCCTACCTTTTCCGAAACATCACTGTGGATGACTAGCTTTC
ACGAGGGTCTCGACCCTGGACCTCCTGAGGGAAACATGGAAAAAGCAGTGCCATGAGTGATACAGTGTTCCTTG
CAAGGGAGGACTCGAAACAGCCTGGAGTTAGATATCTTCTTTTCCCCGGATTGATGGGGAGGAGGGATTAAAGA
GTCAGGAAGAAGACAGAGCTAATGGATAAATATCATAACATGGCCTTACATGCTCTGCTGTCATCAGCCCTGTTCC
TTAAAGTTCTAGCTGCTTTCTTAAAAATAATCTGAAAACTTATTGATACTAAAGAGGAGTTAAAGGCACATAA
AGTCTTAACTCTATAATGTTCAATTTAGTTGTTTCAGCTCCAGGGAAATGGAGGTATTGATGTTGAACCTGGTTAG
GGAAGCTGAGCGCCTGTGGCCCTATTACTATCCAGTTGGCCTCTCCCAAATCAACTTCAAGTCTTTTATAGAGAA
TCGTATTTTCTTTTCAAGAAATTGCTATGCCTACAGCCATTGAAAAATGAAGCATTGTTGTTTACATCTTCCAA
GGATGTCAGATTAGAAAATAGCATCCACCTCTGGGTATCTGAGTGGCTCTGAAGTTGCAAATAAAATAATTTGT
TGT

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FIGURE 4976

MNAARTGYRVFLANSTAACTELAKRITERLGAE LGKSVVYQETNGETRVEIKEFVRGQDIFIIQTIPRDVNTAVM
ELLIMAYALKTACARNIIGVIPYFPYKQSKMRKRSIVCKLLASMLAKAGLTHIITMDLHQKEIQGFFSFPVDN
LRASPFLLQYIQEEIPNYRNAVIVAKSPDAAKRAQSYAERLRLGLAVIHGEAQCTELDMDDGRHSPPMVKNATVH
PGLELPLMMAKEKPPITVVGDVGGRIAIIVDDIIDDVESFVAAAEILKERGAYKIYVMATHGILSAEAPRLIEES
SVDEVVVTNTVPHEVQKLQCPKIKTVDISLILSEAIRRIHNGESMAYLFRNITVDD

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FIGURE 4977A

CGCCTCCCCGCGCCTCGTTCCGCCGCCGCTGTCCGCCGCCGCCGCCGAGACTCGCGCAGAGCAGTTATGGCGGATC
CCGCAGCCCCACGCCCCGAGCTCCCGCTCCAGCCCAGGCCCGGCTCCAGCCCCGAGGCAGTCCCGGCCCCAG
CCGCAGCCCCCGTCCCGGCCGCCGCCGCCGCCCTCGGACTCGGCCTCCGGGCCGTCTCTCGGACTCCGGCCCCAGAAG
CCGGCTCGCAGCGCCTGCTGTTTTCTCACGACCTGGTGTCCGGCCGTTACCGTGGCTCCGTGCACTTCGGGGCTGG
TGCGCCTCATCCACGGCGAGGACTCGGACTCGGAGGGCGAGGAGGAGGGCCGCGGGAGCTCGGGGGTGTCTCCGAGG
CCGGGGGCGCGGGCCACGAGGAGGGCCGGGCCAGCCCCCTGCGCCGCGGCTACGTGCGCGTCCAGTGGTACCCGG
AGGGCGTCAAGCAGCATGTGAAGGAGACCAAGCTGAAACTAGAGGACCGTTCTGTGGTGCCCCGAGATGTGGTCC
GGCAGATGCGATCCACCGACAGTCAGTGTGGCACGGTGATCGACGTCAACATCGACTGTGCCGTCAAGCTCATCG
GCACCAACTGCATCATCTATCCCGTCAACAGCAAGGACCTGCAGCACATCTGGCCCTTCATGTATGGGGACTACA
TTGCCTATGACTGCTGGCTGGGGAAGGTCTACGACTTGAAGAACCAGATCATCCTGAAGCTATCCAACGGCGCCA
GGTGCTCCATGAACACGGAAGATGGCGCCAAGCTCTACGACGTCTGCCCCGACGTGAGCGACTCGGGTCTCTTCT
TCGATGATTCTATGGCTTCTACCCAGGCCAGGTGCTCATTGGCCCTGCCAAGATCTTCTCCAGCGTCCAGTGGC
TGTCAGGTGTCAAGCCCGTGTCTCAGCACCAAGAGCAAGTTCGAGTGGTGGTGGAAAGAGGTGCAGGTTGTAGAGT
TGAAAGTTACATGGATTACCAAGAGTTTCTGTCCAGGGGGCACGGACAGCGTCAGCCCCCACCCTCTGTTCATCA
CCCAGGAAAACCTAGGCAGGGTGAAGCGTCTCGGATGCTTTGACCATGCTCAGCGGCAGCTTGGGGAGCGCTGTC
TGTATGTCTTCCAGCCAAGGTAGAGCCAGCCAAGATTGCTTGGGAATGTCCAGAAAAAACTGCGCCCAGGGGG
AGGGCTCTATGGCCAAGAAGGTGAAGCGCTGTGAAGAAGCAGGTTGTGCGGATCATGTATGCTCCCCAGACA
CCCAGTGTTCGGGGACCATTCATGGAAGACCCAGACAAGAAGGGGGGAATCCAAAACCAAGAGCGAAGCGGAGT
CTGCCAGCCCTGAGGAGACGCCCGATGCTCTGCCAGTCCAGTGGAGATGCAGGACGAGGGTGCAGAGGAGCCCCA
CGAGGCAGGAGAGCAGCTGCCCCCATTCCTGCTAAAAGAAGGCAGAGATGACAGGCTGCACTCGGCAGAGCAGGA
CGCAGATGATGAGGCTGCTGATGACACGGACGACACCAAGTTCGGTGACCTCCTCTGCCAGCTCCACCACTTCCTC
CCAGATGGGCAGCGGCACGAGTCGCAAAAAGAGCATCCCCCTGTCCATCAAGAACTTAAAGCGCAAACACAAGAG
CAAGAAGAATAAAATCACTCGAGACTTCAAGCCAGGGGACAGGGTGGCAGTGGAGGTGGTGACCACGATGACCTC
AGCCGACGTGATGCGCAGGATGGCTCCGTGGAAATGCAACATCCGCTCCAACGACCTCTTCCCTGGCACCACCTG
ACAACAACGAGTTCTGCCCTGGAGACTTCGTGGTAGATAAGCGAGTCCAGAGCTGTCCAGACCCCTGCTGTCTACG
GTGTGGTACAGTCTGGGGACCACATCGGCCGTACCTGCATGGTGAAGTGGTTCAAGCTGAGGCCGAGTGGGGACG
ACGTGGAGCTGATTGGAGAAGAGGAAGATGTAGTGTTCAGACATTGCTGACCACCCCTGACTTTAGGTTCCGTA
CAACTGACATCGTCATCCGCATCGGCAATACTGAGGATGGGGCTCCTCACAAGGAGGATGAGCAGGATTCGGTG
GCCAGGTGGCCCGTGTGGACGTGAGCAGCAAGGTGGAGGTGGTGTGGGCTGACAACCTCAAAGACCATCATCCTGC
CCCAGCACTTGTACAACATAGAGTCTGAGATTGAGGAGTCAGACTACGATTCCGGTAGAAGGCAGCACCAGCGGGC
ATCCTCGGATGAATGGGAAGATGATAGTGACAGCTGGGAGACGGACAATGGGCTGGTGGAGGACGAGCACCCCAA
GATAGAGGAGCCCCCATCCACCCCTGGAGCAGCCGGTGGCCCTGAGGACAAGGGAGTGGTGATCAGTGAAGAG
GCAGCCACAGCCGTAXCXTAGGGGGCTGTGGCCATGGCTGCCCCCATGGCCGGGCTGATGGAGAAGGCTGGCAA
GGACGGGCCACCCAAGAGCTTCCGGGAGTTGAAAGAGGCCATCAAGATCCTGGAGAGCCTCAAGAACATGACTGT
GGAGCAGCTGCTGACGGGCTCGCCACCTCTCCGACTGTGGAGCCTGAGAAGCCAACCTCGGGAGAAGAAGTTTCT
GGATGACATCAAGAAGCTACAGGAAAACCTCAAGAAGACCCTGGACAATGTGGCCATTGTAGAGGAGGAGAAGAT
GGAAGCAGTGCCCGACGTAGAGCGCAAGGAGGACAAGCCGAGGGCGAGTCACCTGTGAAGGCTGAGTGGCCAG
CGAAACCCCGGTGCTGTGCCAGCAGTGTGGCGGCAAGCTGGCGTCACCTTACCAGCGCCAAGGGCGAGGTCTTC
TCCGTACTGGAGTTTGCACCCTCAAATCATTCTTTAAGAAAATTGAGTTCAGCCTCCAGAAGCCAAGAAGTTC
TTCAGCACAGTGCAGGAAGGAGATGGCGCTGCTGGCTACCTCACTGCCTGAGGGCATCATGGTCAAGACTTTTGAA
GATAGAATGGACCTCTTCTCAGTCTCATCAAGGGCCCCACTCGAACCCCTACGAGGATGGCCTCTACTTGTTC
GACATCCAGCTCCCCAACATCTACCCAGCCGTGCCCCCACTTCTGCTACCTCTCCAATGCAGTGGCCGCTG
AACCCCAACCTGTATGACAATGGGAAGGTGTGTGTGACGCTCCTGGGCACCTGGATTGGAAAGGGGACAGAGAGG
TGGACAAGCAAGTCCAGCCTTCTCCAGGTGCTCATCTCCATCCAAGGTCTGATCCTGGTAAATGAACCATACTAC
AACGAAGCCGGCTTCGACAGTGACCGAGCCTGCAGGAAGGCTATGAAAACAGTCGCTGTTACAATGAGATGGCG
CTGATCCGCGTGGTGCAGTCCATGACCCAGCTGGTGGCGGGCCCCCCCCGAGGACTTTGAGCAGGAGATCAGGCAA
CACTTTAGCACTGGTGGCTGGCGCTGGTGAACCGTATCGAGTCTGGCTGGAAACCCATGCCCTGCTGGAGAAG
GCCCAGGCACTGCCCCACGGGTGCCCCAAGGCCAGCAGCTCGCCAGACGCCCCAGCTGTAGCCGAGCTGTCAGAC

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FIGURE 4977B

TCCGGCCAACAAGAACCTGAGGATGGAGGGCCAGCCCCAGGAGAGGCCTCCCAGGGCTCAGACTCAGAGGGCGGT
GCCAGGGCCTGGCCTCAGCTAGCAGGGACCACACAGACCAGACTTCGGAGACCGCACCAGACGCATCGGTGCCAC
CCAGTGTGAAACCAAAGAAGCGGAGAAAGAGCTACCGGAGCTTCTTACCTGAGAAGAGTGGCTACCCTGACATCG
GCTTCCCCCTCTTCCCACCTTCCAAAGGGTTTCATCAAGAGCATCCGGGGTGTCTGACGCAGTTCCGGGCTGCCCT
GCTAGAGGCAGGCATGCGGXAGTGCACAGAGGACAAGTAGCTGCCAGGCACAGAGGAAAGAGCATCACCGTGGGA
GAGGCCAGCCGCCGCTGCTCACTCCCCCGGAATCACCCCTCTTCCCATGCCCCCTCTGTCCCCACTGCAAACC
CACTGCCCTCTTCTCCCCAAGGTGAGTTTGATGCTGAAGTGCAAGAAGTGTGTTGAGATGCTGCCGTTTCTATTT
TGAAGCGAGCTTTCAACAGGCGGGTCCCCGTGTGGCAAAGAAAATCGGAACCCTGTTGCCGATTTTCCATTTGTCA
CCCCAGCAGAAATGTCCGGCCTTGCTCCCTTGCTGCCCCCTTCTCAGGTCAGAGGCGGGTGTTCAGGGCCTGCCG
CGGGGCTCTCTGGGGCCGGTTCCCTGCAGACCCGCAGACGAGCACATGTGCCTTGTCATGAAGTGTGGGTGCGCCA
ACAATTCCCCCTGGTCCCTTTCAACCTGTTTAGTTCAACTCAAGCCTCCCTGTGTCCCAGACCCTCCTGCTGCCAC
CACCACCCAGGTCCCTCCCTAGTCCCTCCAGCGTCAACACTATCCCTTGGGGAGTTGTAGCTGCTGTCACTGACTCC
CGGCTATACATGGCCTGTGACCCAGTTATAGCCCTCAGGCCTGTTGAAGTGTCTCTAAGAGAGGTTGGGACC
AGGCTAGGTTCCGGGTGACGCCAGGAGAGGTGGTGGCCTTCACACATGCACATGGAGTTGAGGACCAGGGAGCT
GCAGGGAAAGCAACAGCTATAGGTGCCTTGCTCTTCTGTGCGGAGGCTGCTGGGGGCAAGAGCAGCTGCACAAGGC
CAGGGCAAGTGCTAGGGCCCCCTCCCCATCACATGGTTCACACTGGGACAGGCGTGACGCTCACTGAACTCCAAGC
GAGCCAGCCCTCTCTTGGAAGTAGAAGGCTACTGTGACCCCTTCGCTTACAACTGCAGGCTCAATCCGAAGGGG
ACGGCCGGCGGGGGCTCTCCTAGTGCCAGAGACAGGCCCAGAGGTTTACAAGTTTTCTAAGCTTTTGATAATGT
GAAGCTCCAGGCCGAGAGGATGCTGTTGAGCACATTGCAGCTATGTAATTTTTGGTGTATGTATGTAATATTTAA
GGTTGGAACAAAACTCAAAAGCAAAGATATTAAGTCTTATTAGAAAAAAGACAAAAAAGCCAAAGCATGA
TGCCTCTTGTGAGCCTTAAGTGGGCTCCACACCTGTGCTGTGCTGTGACCGCCAGCCAGCAGAGCTGCGGGAGG
ATGGAGCCGGACCACACACCGTGGCATTGGAACCGAGTCGGTATCTTGTGTTGAGAAACACCCGGAGTACTGGT
GGGGCTGTGCTTCCAGTGCATTGTACATGTGGAGATGTGAATGCCTACTGCTTACGATATCTGTATAAAGTGCT
GTGTGATTAACTTTTTTTTACTTGC

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FIGURE 4978

CAGGACGCACATGCAGAACATCAAGGACATTTGGGTCTCCTTCGTGGTGTACCTTGTGAAGCGCCTCAA
CGAGGGCAGCAGCGCCATGGCCAACGGCATGGAGGAGAAGGAGCCAGAAGCCCCGGAGATGTAGACGCCACCTG
CCCACCCCGGGATCCTGCCCCAAGTCATTTCCGTCCCCCCCCCAGGCCCTCCCACCACCCCATTTTATTTTATA
TGATTTTCTCCATTTGTTCATCGTTCCCCACCCCTTCGACATGCTGCCAGGAAACAAGGGAAGGGGCTCCCTCCG
AGTGAGTCAGTGATGAGGCCGCGGCCTCCCCGAGGTTGTGGGGAGGCTGCACTGGAGCCACAGGCAGGGGTGAGA
GCACCCACTGAATTGACATGACCCTCTGTCCCCAGGCCTGGCTCCCCGAGGGCTCAGAAGAGCAGCTTCGGTGTG
CAGATCATCCGTCGTGTGTGGGGTTCTCAGTGCCGGAGGCCTTGGGGTGGGGGCCAGGCCTCGCACTTGCAGAGGA
GCCCAGTGGGCTGCACGCTCCCCTCCATCCCCATCGGCCCTGTCCCCTGGAGTGTGTGAGAGCCCAGGGGAGAAT
GCAGCCCACCAGGAGCACCTGGACCCCTGCCCCGCCACATGGTGTGGCCATCACTCAGCCCCCTACCCCTGCCCTG
CTCCTAAGGGTAGAAAACCTCCAGGGTCCCCTGCCACCGACTGCCAGCCACTCCAAGCCCCCTGGCAGCTGCCCC
TCCTGGAGCAGAAAGTGCCTTTATCTCAGCCATCCGCAGACTGCTTGGCCAGATGCGGGGACAGGCTGGAATGAG
GGAGGCGTCTTCATCTCCCTGCCATCCCCCTCTCACGCCACCCCCGCCCCACCGGGCTGCAGGTGCTGCTGATG
CGCTGGGATCTGATTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCTCATCCCCAGTTTTGAAAAGGTC
TAAGCAAGTGAGTCTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAGAAGGAAGGTTGGCGGGGGCAC
GTGTGGGCCGTGGCTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCCCTGCCCAAGTGACCAGGGAAG
TGTGTGTGTGTCCATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTTGGCCCCAAGACTGGGCTGTAGT
TACATTAATGCCAGCCAGCCACCCCTGCCACTCACCTTCTGGCCCCAGGCCTTGTCTGACTCTCTGAGCTGGGG
AGGTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTGCCCTGGGCCCCCTCCCCTCAGAGCCCATGGTAAC
GAACCCCTAGAAAGGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAGAGCAAGGTTTCGTGGCAGCAC
GGCCCGGCCCTCACCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTCAGGGGCACAGATGACCAAAGT
CCCTTCCTGCTTCCTGTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCTGATGAGACTCCACTCAGGTGCACA
CATCACCAGGTGCATCTGCAGGCACCGGGCTGGCTGCTTGAGCCAGGAGAAGGTCAGCGAGAAGGAGTGTATGA
GTGTGAGTGTGTGTGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCACCCAAGAGAGGAAGGACCCCT
CACCACCCCACTGGTGAGACAGTTTACTTTGCCAACTTGCCATGTTTTTGCCAAAACCAAGATTTTGAAGGAAA
TGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCAGCCTCAATGTCACCTGGTGGCGGGGTGGGGTGGG
GGTGGGCAGCAGCATCCCAGCCTTGAGATGCTTCACTTTCCTTCTCTGTAACCAGACTTTGAAAAATTGTTTCGTT
TCATCAGGCTCTGTTCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTGTCTTTTGTATAAATGACAAA
GTGTTGAAAATGTATTTCTGAAATAAATGTTTCAAATGCAGAAACCC

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FIGURE 4979

MGSFRTSSALKRSFEVEEETPNSTPPRRVQTPLLRATVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRR
VELSGPKAAEPVSRRELSIDISSQVENAGAIGPSRFGKRAEVLGHKTPEPAPRTEITIVKPQESAHRMEP
PASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQTLNSENAPVSQLQSRLEPKPQPPVAEATPRSQEAT
EAAPSCVGDMA DTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINT
LFKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGVRMKLTVIDTPGFGDHINNENCWQPI MKFINDQYEKYLQ
EEVNINRKKRIPDTRVHCCLYFIPATGHSRPLDIEFMKRLSKVVNIVFVIAKADTLTLEERVHFKQRITADLLS
NGIDVYPQKEFDEDESDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTTHCEFAYLRDLLIR
THMQNIKDITSSIHFEAYRVKRLNEGSSAMANGVEEKEPEAPEM

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FIGURE 4980

CAGATGTAGTTTTTCCGCACGTGCACGCCCTTCCTCCTCCCCGCCCTCAGGGTCCACGGCCACCATGGCATATT
AGGGGCAGCAGTGCCTGCGGCAGCATTGGCCTTTGCAGCGGCGGCAGCAGCACCAGGCTCTGCAGCGGCACCCCC
CAGCGGCTTAAGCCATGGCGCTTCCCACGGCATTGAGCAGCAGCATTGCTGTAAACGACAAAGACACCTTCGAAT
TAAGCACATTACTCGATTCCAGCAAAGCACCGCAACATGACCGAAATGAGCTTCCTGAGCAACGAGGTGTTGGTG
GGGGACTTGATGTCCCCCTTCGACCAGTCGGGTTTGGGGGCTGAAGAAAGCATAGGTCTCTTAGATGACTACGTG
GAGGTGGCCAAGCACTTCAAACCTCATGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGACT
GTGGATGGGTTGGTCAGTCCCTCCAACAACAGCAAGGAGGATGCCTTCTCTGGGACACATTGGATGTTGGAGAAA
ATGGATTTGAAGGAGTTCGACTTTGGTGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTTTG
ACCACGTTGGATGACACTTGTAACTCTTTTGCCCCCTAGTCCAGGAGACTAATAAGGTGCCCCCCCAGATGGTG
AACCCAATTGGCCATCTCCCAGAAAGTTTAACAAAACCCGACCAGGTTGCCCCCTTACCTTCTTGCAACTTCTT
CCCCTTTCCCCAGGGGTCCAGTCCCTCCACTCCAGATCATTCTTTAGTTTAGAGCTGGGCAGTGAAGTGGATATC
ACTGAAGAAGATAGGAAGCCGGACTCCACTGCTTACGTTGCCATGATCCCTCAGTGCATAAAGGAGGAAGACACC
CCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCCATCTGGGGTCTCCTCAGCATAGCCCCCTCTACC
AGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCCCCCCAAACCTTACGATCCT
CCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAAACTGGATAAGAAGCTGAAAAAAATGGAGCAAAAC
AAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAGGAGGCTCTCACTGGCGAGTGCAAAGAGCTG
GAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCAGATTCCCTGGCCAAGGAGATCCAGTACCTGAAAGATTTGATA
GAAGAGGTCCGCAAGGCAAGGGGAAGAAAAGGGTCCCCTAGTTGAGGGTAGGTGAGGAGTGTCAACGTGCTTGT
ACATAGAGTGTCTGCTGTAGCTGTGTGTTCCAATAAATTATTTTGTAGGG

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FIGURE 4981

MTEMSFLSNEVLVGDLMSPFQSGLGAEESIGLLDDYVEVAKHFKPHGFSDDKAKAGSSEWLTVDGLVSPSNNSK
EDAFSGTHWMLEKMDLKEFDGALLGIDDLETMPD DLLTTLDDTCNLFAPLVQETNKVPPQMVNP IGHLPESLTK
PDQVAPFTFLQLPLSPGVQSSTPDHSFSLELGSEVDITEEDRKPDSTAYVAMIPQCIKEEDTPSDNDSGICMSP
ESYLGSPQHSPSTRGSPNRS LPSPGVLCGSAHPKPYDPPGEKMVA AKVKGEKLDKKLKKMEQNKTAATRYRQKKR
AEQEALTGECKELEKKNEALKERADSLAKEIQYLKDLIEEVRKARGKKRVP

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FIGURE 4982

CGCTAGCCTGCGGAGCCCGTCCGTGCTGTTCTGCGGCAAGGCCTTTCCCAGTGTCCTCCACGCGGAAGGCAACTGC
CTGAGAGGCGCGGCGTTCGCACCGCCAGAGCTGAGGAAGCCGCGCCAGTTCGCGGGGCTCCGGGCCGCCACTCA
GAGCTATGAGCTACGGCCGCCCCCTCCCGATGTGGAGGGTATGACCTCCCTCAAGGTGGACAACCTGACCTACC
GCACCTCGCCCGACACGCTGAGGCGCGTCTTCGAGAAGTACGGGCGCGTCCGGCGACGTGTACATCCCGCGGGATC
GCTACACCAAGGAGTCCCGCGGCTTCGCCTTCGTTTCGTTTACGACAAGCGCGACGCTGAGGACGCTATGGATG
CCATGGACGGGGCCGTGCTGGACGGCCGCGAGCTGCGGGTGCAAATGGCGCGCTACGGCCGCCCCCGGACTCAC
ACCACAGCCGCGGGGACCGCCACCCCGCAGGTACGGGGGCGGTGGCTACGGACGCCGGAGCCGACGCCCTAGGC
GGCGTCGCCCGACCCGATCCCGGAGTCGGAGCCGTTCCAGGTCTCGCAGCCGATCTCGCTACAGCCGCTCGAAGT
CTCGGTCCCGCACTCGTTCTCGATCTCGGTTCGACCTCCAAGTCCAGATCCGCACGAAGGTCCAAGTCCAAGTCCT
CGTCGGTCTCCAGATCTCGTTTCGCGGTCCAGGTCCCGGTCTCGGTCCAGGAGTCTCCCCAGTGTTCCAAGAGGG
AATCCAAATCCAGGTTCGCGATCGAAGAGTCCCCCAAGTCTCCTGAAGAGGAAGGAGCGGTGTCTCTTAAGAAA
ATGATGTATCGGCAAGCAGTGTAACCGGAGGACTTGGGGAAAAAGGACCACATAGTCCATCGAAGAAGAGTCCTT
GGAACAAGCAACTGGCTATTGAAAAGGTTATTTTGTAAACATTTGTCTAACTTTTACTTGTTTAAGCTTTGCCTC
AGTTGGCAAACCTTCATTTTATGTGCCATTTTGTGCTGTTATTCAAATTTCTTGTAATTTAGTGAGGTGAACGAC
TTCAGATTTTATTATTGGATTTGGATATTTGAGGTAAAAATTTCAATTTTGTATATAGTGCTGACTTTTTTTGTTT
GAAATTAACAGATTGGTAACCTAATTTGTGGCCTCCTGACTTTTAAGGAAAACGTGTGCAGCCATTACACACAG
CCTAAAGCTGTCAAGAGATTGACTCGGCATTGCCTTCATTCCTTAAAAATTAAAAACCTACAAAAGTTGGTGTA
TTTGATATGTTATTTACCTTCAGATCTAAATGGTAATCTGAACCCAAATTTGTATAAAGACTTTTCAGGTGAAA
AGACTTGATTTTTTGAAAGGATTGTTTATCAAACACAATTTCTAATCTCTTCTTATGTATTTTTGTGCACTAGG
CGCAGTTGTGTAGCAGTTGAGTAATGCTGGTTAGCTGTTAAGGTGGCGTGTTGCAGTGCAGAGTGCTTGGCTGTT
TCCTGTTTTCTCCCGATTGCTCCTGTGTAAAGATGCCTTGTCGTGCAGAAACAAATGGCTGTCCAGTTTATTAAA
ATGCCTGACAACTGCACTTCCAGTCACCCGGGCCTTGCAATAAAATAACGGAGCATAAGTGAGCACATCTAGCT
GATGATAAATACACCTTTTTTCCCTCTTCCCCCTAAAAATGGTAAATCTGATCATATCTACATGTATGAACTTA
ACATGGAAAATGTTAAGGAAGCAAAATGGTTGTAACCTTGTAAGTACTTATAACATGGTGTATCTTTTTGCTTATG
AATATTCTGTATTATAACCATTTGTTCTGTAGTTTAATTAACATTTTCTTGGTGTTAGCTTT

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FIGURE 4983

MSYGRPPPDVEGMTSLKVDNLTYRTSPDTLRRVFEKYGRVGDVYIPRDRYTKESRGFAFVRFHDKRDAEDAMDAM
DGAVLDGRELRVQMARYGRPPDSHHSRRGPPPPRRYGGGGYGRRSRSPRRRRRSRSRSRSRSRSRSRSRSRYRSKSR
SRTRRSRSTSKRSARRSKSKSSSVRSRSRSRSRSRSRSRPPPVSKRESKRSRSRSKSPPKSPEEEGAVSS

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FIGURE 4984

CTTGGACTTGGACCTTCGTGCGGATCTGGACTTGGAGGTCGACCGAGATCGAGAACGAGTGCGGGACCGAGACTT
CGAGCGGCTGTAGCGAGATCGGCTGCGAGACCTGGAACGGCTCCGACTCCGGGATCGGCTGCGGCGACGCCGCCT
AGGGCTGCGGGCGGGACGAGCAAGCACAGCGGGGTTAATTCCAGGCAGCGGGGCCGGCCCCGCCGCGXCTXC
CCGCCCAGGCCGCCATTATCTCGCCGCCAGACGCCATTTCGCCAGTCGCGAGGCGGGGTCTCCGCCCGCGCGCG
CCCACACCCCGGCCACTCCCGGGTCGCGAGACGGCGGAAGCTCGCGGGGTGGCCGAGGGTCGCGAGACGCGGCGT
GCACCCCGCCCCXGXTXCCGGGCCCGCACACGTCGCTTCGCCCGGACCTTTGTGAGGTGCGCCGGGCCTCCCG
CGCGCCCCGCCCGCCTCCCGCGGTCCCCTCAGCCCCGTTTACCTGCGGCTCCGGCGTCCGTAGCCACCGCCCC
GTACCTGCGGGGTGGCGGTCCCGGGCGGTGTGGTGTGAGTCCGGGGGGCGGCCGTAGCGCGCCATTTGCACCCG
CAGCTCGCGGCCGTCCAGCACGGCCCCGTCCATGGCATCCATAGCGTCCCTCAGCGTCGCGCTTGTCTGTGAAAGCG
AACGAAGGCGAAGCCGCGGGACTCCTTGGTGTAGCGATCCCGCGGGATGTACACGTCGCCGACGCGCCCGTACTT
CTCGAAGACGCGCCTCAGCGTGTGCGGCGAGGTGCGGTAGGTGAGGTTGTCCACCTTGAGGGAGGTACATACCTC
CACATCGGGAGGGGGGCGGCCGTAGCTCATAGCTCTGAGTGGCGGGCCCGGAGCCCCGGAAGTGGCGCCGGCTTC
CTCAGCTCTGGGCGGTGCGACGCCGCGCCTCTCAGGCAGTTGCCTTCCGCGTGGGGACACTGGGAAAGGCCTTGC
CGCAGAACAGCACGGACGGGTCCCGCAGGCTAGCGCACTGAGTAACAAGTGGGCGGGCAGCCGGCCTCTGCGCC
CGTTTATATCGCTCCTCACAAAATGGCGCCCCGCGCCACCCGGAAGTGAACCTTCTGATTGGCCCCACCGCGCCCC
GCTTCGTAACGACCCTGCCGCGCGCCCCGCCCTACCCGAAGCGCCTGCGCACAGCCCCGGCGGGCGGGCCAAAAA
GCGCGGAGTCACGGCTGGAGGGAGGGGGAGCGGAATTAGCGGGCAGTTGGAAAGCCCCGGAACGCTTTTTCCGC
CTGGGAGGCCGGACGATCGCGATTGGGCAGGAGXGXAAGAGGAGGTGCTCCCCATCTGGGCCCCACCTTTTTTT
CATGCCAATACTCCAAGTTCACGCCCCTTTTTGTCTCAGCCGTGAGCCCCGTCTCCGTCTGAAGAGTGCTTCTGC
CCTCATTTGCCTCTCCCTGTGACCCCGGCCCCCTCAGACTCCGCTGCGTCTCTCTCGGCCCCGTCCAGCCGTTT
CTGACTGCTCTTCGCCGGAGTCCGCTTCCCAACCCCTTTTCGCCAGAGCCCGAGAGCTCCGTGCGCTCTGCGTCC
TGGCGGTGGGGACTCCCCGCCGAGCGCTTGCCTGCGGTGCCAGGTACCCGGGACTACGTTTCCXAXGCGXGCGC
GAGCGGCCGGCGCCGCGGTGCGGTGAGGTGACCCGGTGCCTGGCCGAGTGAGTACGGCTGGGAGGGCGGGC
CGCGCCGGCTGCTGCGGTGGCACTTGGCCCTTTAATCCCTTTCGTGGGCCCCCAACCTGGAGCGGATAAATTC
TTGGCGCTTCTXCCGGGGGTGTGCTCTTCCGTACTCGGATCGCTTCTTAGGAGTATCTAACTGCCGTGGGA
GAACTTCGCCCTAAACCTGGGGTTCCGATCCAGGAAGTGAAGTTGACAGCTTGGCTGCCTGGCTCCTACATCTG
CCTTCTCCACTACCATCTCATTTCTTCTCCAGGATTGTGAGTGGCTTCGCCCCGAGGAGAGCTGACTGCCCTG
GGCTGCTGCTCCGGCAGAGCTGAGCCAAAATGTCCCGGAATCTAAAAAGCTTTTCAACATCATTATTTTAGGA
GTTGCCTTTATGTTTATGTTCACTGCCTTTCAAACTTGTGG

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FIGURE 4985

CCGCCAGATTTGAATCGCGGGACCCGTTGGCAGAGGTGGCGGCGGCGGCATGGGTGCCCCGACGTTGCCCCCTGC
CTGGCAGCCCTTTCTCAAGGACCACCGCATCTCTACATTCAAGAACTGGCCCTTCTTGGAGGGCTGCGCCTGCAC
CCCGGAGCGGATGGCCGAGGCTGGCTTCATCCACTGCCCCACTGAGAACGAGCCAGACTTGGCCCAGTGTTCCTT
CTGCTTCAAGGAGCTGGAAGGCTGGGAGCCAGATGACGACCCCATAGAGGAACATAAAAAAGCATTTCGTCGGTTG
CGCTTTCCTTTCTGTCAAGAAGCAGTTTGAAGAATTAACCCCTTGGTGAATTTTGAAGTGGACAGAGAAAGAGC
CAAGAACAAAATTGCAAAGGAAACCAACAATAAGAAGAAAGAAATTTGAGGAAACTGCGAAGAAAGTGCGCCGTGC
CATCGAGCAGCTGGCTGCCATGGATTGAGGCCCTCTGGCCGGAGCTGCCTGGTCCCAGAGTGGCTGCACCACTTCC
AGGGTTTATTCCCTGGTGCCACCAGCCTTCCCTGTGGGCCCTTAGCAATGTCTTAGGAAAGGAGATCAACATTTT
CAAATTAGATGTTTCAACTGTGCTCCTGTTTTGTCTTGAAAGTGGCACCAGAGGTGCTTCTGCCTGTGCAGCGGG
TGCTGCTGGTAACAGTGGCTGCTTCTCTCTCTCTCTCTTTTTTGGGGGCTCATTTTTTGCTGTTTTTGATTCCCG
GGCTTACCAGGTGAGAAGTGAGGGAGGAAGAAGGCAGTGTCCCTTTTGCTAGAGCTGACAGCTTTGTTTCGCGTGG
GCAGAGCCTTCCACAGTGAATGTGTCTGGACCTCATGTTGTTGAGGCTGTACAGTCCCTGAGTGTGGACTTGGCA
GGTGCCGTGTTGAATCTGAGCTGCAGGTTCCCTTATCTGTACACCTGTGCCTCCTCAGAGGACAGTTTTTTTTGTTG
TTGTGTTTTTTTTGTTTTTTTTTTTTTGGTAGATGCATGACTTGTGTGTGATGAGAGAATGGAGACAGAGTCCCTGG
CTCCTCTACTGTTTAACAACATGGCTTTCTTATTTTGTGTTGAATTGTTAATTCACAGAATAGCACAAACTACAAT
TAAACTAAGCACAAAGCCATTCTAAGTCATTGGGGAAACGGGGTGAACCTTCAGGTGGATGAGGAGACAGAATAG
AGTGATAGGAAGCGTCTGGCAGATACTCCTTTTGCCACTGCTGTGTGATTAGACAGGCCCAGTGAGCCGCGGGGC
ACATGCTGGCCGCTCCTCCCTCAGAAAAAGGCAGTGGCCTAAATCCTTTTTAAATGACTTGGCTCGATGCTGTGG
GGGACTGGCTGGGCTGCTGCAGGCCGTGTGTCTGTGCAGCCCAACCTTCACATCTGTACGTTCTCCACACGGGGG
AGAGACGCAGTCCGCCCAGGTCCCCGCTTTCTTTGGAGGCAGCAGCTCCCGCAGGGCTGAAGTCTGGCGTAAGAT
GATGGATTTGATTGCCCTCCTCCCTGTCATAGAGCTGCAGGGTGGATTGTTACAGCTTCGCTGGAAACCTCTGG
AGGTCATCTCGGCTGTTCTGAGAAATAAAAAAGCCTGTCATTC

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FIGURE 4986

MGAPTLPPAWQPFLKDHRI STFKNWPFLEGC ACTPERMAEAGF IHCPTENEPDLAQCF FCFKELEGWEPDDDP I E
EHKKHSSGCAFLSVKKQFEELTLGEFLKLDRE RAKNKIAKETNNKKKEFEETAKKVRR AIEQLAAMD

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FIGURE 4987

GCGGCGGCGGCAGCGGCGGCGACGGCGACATGGAGAGCGGGGCCCTACGGCGCGGCCAAGGCGGGCGGCTCCTTCG
ACCTGCGGCGCTTCCTGACGCAGCCGCAGGTGGTGGCGCGCGCCGTGTGCTTGGTCTTCGCCTTGATCGTGTTC
CCTGCATCTATGGTGAGGGCTACAGCAATGCCACGAGTCTAAGCAGATGTACTGCGTGTTCAACCGCAACGAGG
ATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCCTGGCCTCGGCCTTCTTCTTGGTGGTTCGACGCGT
ATTTCCCCCAGATCAGCAACGCCACTGACCGCAAGTACCTGGTCATTGGTGACCTGCTCTTCTCAGCTCTCTGGA
CCTTCCTGTGXTGGTTTGTTGGTTTCTGCTTCCTCACCAACCAGTGGGCAGTCACCAACCCGAAGGACGTGCTGGTG
GGGGCCGACTCTGTGAGGGCAGCCATCACCTTCAGCTTCTTTCCATCTTCTCCTGGGTAGGATGGCCAGGGGCC
GGTTCTTGGGTCAAGGXGTGTGGAAGGGGGGGXAXCCCCAXCCCACCTGTACCCTGCTGTGCTCCCCCTGCAGG
GTGTGCTGGCCTCCCTGGCCTACCAGCGCTACAAGGCTGGCGTGGACGACTTCATCCAGAATTACGTTGACCCCA
CTCCGGACCCCAAXACACTGCCTACGCCTCCTACCCAGGTGCATCTGTGGACAACCTACCAACAGCCACCCCTCACC
CAGAACGCGGAGACCACCGAGGGCTACCAGCCGCCCCCTGTGTACTGAGCGGCGGTTAGCGTGGGAAGGGGGACA
GAGAGGGCCCTCCCXCTCTGCCCTGGACTTTCCCATGAGCCTCCTGGAAGTCC

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FIGURE 4988

CTTACTGCGGGACGGCCTTGGAGAGTACTCGGGTTCGTGAACCTTCCCGGAGGCGCAATGAGCTGCATTAACCTGC
CCACTGTGCTGCCTGGCTCCCCCAGCAAGACCCGGGGGCAGATCCAGGTGATTCTCGGGCCGATGTTCTCAGGAA
AAAGCACAGAGTTGATGAGACGCGTCCGTGCTTCCAGATTXGCTCAGTACAAGTGCCTGGTGATCAAGTATGCC
AAAGACACTCGCTACAGCAGCAGXCTTCTGCACACATGACCGGAACACCATGGAGGCACTGCCCGCTGCCTGCT
CCGAGACGTGGCCCAGGAGGCCCTGGGCGTGGCTGTCATAGGCATCGACGAGGGGCAGTTTTTCCCTGACATCGT
GGAGTTCTGCGAGGCCATGGCCAACGCCGGAAGACCGTAATTGTGGCTGCACTGGATGGGACCTTCCAGAGGAA
GCCATTTGGGGCCATCCTGAACCTGGTGGCGCTGGCCGAGAGCGTGGTGAAGCTGACGGCGGTGTGCATGGAGTG
CTTCCGGGAAGCCGCCTATACCAAGAGGCTCGGCACAGAGAAGGAGGTGAGGTGATTGGGGGAGCAGACAAGTA
CCACTCCGTGTGTGGCTCTGCTACTTCAAGAAGGCCTCAGGCCAGCCTGCCGGGCCGGACAACAAAGAGAACTG
CCCAGTGCCAGGXAAAGCCAGGGGAAGCCGTGGCTGCCAGGAAGCTCTTTGCCCCACAGCAGATTCTGCAATGCA
GCCCTGCCAACTGAGGGACCTGCGAGGGCCGCCCGCTCCCTTCCCTGCCACTGCCGCCTACTGGACGCTGCCCTGC
ATGCTGCCCAGCCACTCCAGGAGGAAGTCGGGAGGCGTXGGAGGGTGACCACACCTTGGCCTTXCTGGGAACCTCT
CCTTTGTGTGGCTGCCCCACCTGCCGCATGCTCCCTCCTCTCCTACCCACTGGTCTGCTTAAAGCTTCCCTCTCA
GCTGCTGGGACGATCGCCCAGGCTGGAGCTGGCCCCGCTTGGTGGCCTGGGATCTGGCACACTCCCTCTCCTTGG
GGTGAGGGACAGAGCCCCACGCTGTTGACATCAGCCTGCTTCTTCCCCTCTGCGGCTTTCAGTCTGAGTTTCTG
TTCTCCCTGGGAAGCCTGTGCCAGCACCTTTGAGCCTTGGCCCCACACTGAGGCTTAGGCCTCTCTGCCTGGGATG
GGCTCCCACCCTCCCCTGAGGATGGCCTGGATTACGCCCTCTTGTTTCCCTTTGGGCTCAAAGCCCTTCCCTACC
TCTGGTGATGGTTTTCCACAGGXAAACAACAGCATCTTTACCAAGATGGGTGGCACCAACCTTGCTGGGACTTGGGA
TCCCAGGGGCTTATCTCTTCAAGTGTGGAGAGGGCAGGGTCCACGCCCTCTGCTGTAGCTTATGAAATTAACATAAT
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FIGURE 4989

AATCGAAAGTAGACTCTTTTCTGAAGCATTTCCTGGGATCAGCCTGACCACGCTCCATACTGGGAGAGGCTTCTG
GGTCAAAGGACCAGTCTGCAGAGGGATCCTGTGGCTGGAAGCGAGGAGGCTCCACACGGCCGTTGCAGCTACCGC
AGCCAGGATCTGGGCATCCAGGCACGGCCATGACCCCTCCGAGGCTCTTCTGGGTGTGGCTGCTGGTTGCAGGAA
CCCAAGGCGTGAACGATGGTGACATGCGGCTGGCCGATGGGGGCGCCACCAACCAGGGCCGCGTGGAGATCTTCT
ACAGAGGCCAGTGGGGCACTGTGTGTGACAACCTGTGGGACCTGACTGATGCCAGCGTCGTCTGCCGGGCCCTGG
GCTTCGAGAACGCCACCCAGGCTCTGGGCAGAGCTGCCTTCGGGCAAGGATCAGGCCCCATCATGCTGGACGAGG
TCCAGTGCACGGGAACCGAGGCCTCACTGGCCGACTGCAAGTCCCTGGGCTGGCTGAAGAGCAACTGCAGGCACG
AGAGAGACGCTGGTGTGGTCTGCACCAATGAAACCAGGAGACCCACACCCTGGACCTCTCCAGGGAGCTCTCGG
AGGCCCTTGGCCAGATCTTTGACAGCCAGCGGGGCTGCGACCTGTCCATCAGCGTGAATGTGCAGGGCGAGGACG
CCCTGGGCTTCTGTGGCCACACGGTCATCCTGACTGCCAACCTGGAGGCCCAGGCCCTGTGGAAGGAGCCGGGCA
GCAATGTCAACCATGAGTGTGGATGCTGAGTGTGTGCCCATGGTCAGGGACCTTCTCAGGTACTTCTACTCCCGAA
GGATTGACATCACCTGTCTGTCAGTCAAGTGCTTCCACAAGCTGGCCTCTGCCTATGGGGCCAGGCAGCTGCAGG
GCTACTGCGCAAGCCTCTTTGCCATCCTCCTCCCCAGGACCCCTCGTTCCAGATGCCCTTGGACCTGTATGCCT
ATGCAGTGGCCACAGGGGACGCCCTGCTGGAGAAGCTCTGCCTACAGTTCTTGGCCTGGAACCTTCGAGGCCCTTGA
CGCAGGCCGAGGCCCTGGGCCAGTGTCCCCACAGACCTGCTCCAAGTGTCTGCTGCCCAGGAGCGACCTGGCGGTGC
CCAGCGAGCTGGCCCTACTGAAGGCCGTGGACACCTGGAGCTGGGGGGAGCGTGCCTCCCATGAGGAGGTGGAGG
GCTTGGTGGAGAAGATCCGCTTCCCCATGATGCTCCCTGAGGAGCTCTTTGAGCTGCAGTTCAACCTGTCCCTGT
ACTGGAGCCACGAGGCCCTGTTCAGAGAAGAAGACTCTGCAGGCCCTGGAATTCCACACTGTGCCCTTCCAGTTGC
TGGCCCCGGTACAAAGGCCCTGAACCTCACCGAGGATACCTACAAGCCCCGGATTTACACCTCGCCCCACCTGGAGTG
CCTTTGTGACAGACAGTTCCCTGGAGTGCACGGAAGTCACAACCTGGTCTATCAGTCCAGACGGGGGCCCTTTGGTCA
AATATTCTTCTGATTACTTCCAAGCCCCCTCTGACTACAGATACTACCCCTACCAGTCCCTTCCAGACTCCACAAC
ACCCAGCTTCTCTTCCAGGACAAGAGGGTGTCTGGTCCCTGGTCTACCTCCCCACCATCCAGAGCTGCTGGA
ACTACGGCTTCTCCTGCTCCTCGGACGAGCTCCCTGTCTGGGCCCTACCAAGTCTGGCGGCTCAGATCGCACCA
TTGCCTACGAAAACAAAGCCCTGATGCTCTGCGAAGGGCTCTTCGTGGCAGACGTACCGATTTTCGAGGGCTGGA
AGGCTGCGATTCCCAGTGGCCCTGGACACCAACAGCTCGAAGAGCACCTCCTCCTTCCCCTGCCCGGCAGGGCACT
TCAACGGCTTCCGCACGGTCATCCGCCCTTCTACCTGACCAACTCCTCAGGTGTGGACTAGACGGCGTGGCCCA
AGGGTGGTGAGAACCGGAGAACCCAGGACGCCCTCACTGCAGGCTCCCCTCCTCGGCTTCTTCTCTCTGCAA
TGACCTTCAACAACCGGCCACCAGATGTGCGCCCTACTCACCTGAGCGCTCAGCTTCAAGAAATTACTGGAAGGCT
TCCACTAGGGTCCACCAGGAGTTCTCCACCACCTCACCAGTTTCCAGGTGGTAAGCACCAGGACGCCCTCGAGG
TTGCTCTGGGATCCCCCACAGCCCTGGTCAGTCTGCCCTGTCACTGGTCTGAGGTCAATTAATAATTACATTGA
GGTTCCTA

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FIGURE 4990

MTPPRLFWVLLVAGTQGVNDGDMRLADGGATNQGRVEIFYRGQWGTVCNLDLTDASVVCRALGFENATQALG
RAAFGQGS GPIMLDEVQCTGTEASLADCKSLGWLKSNCRHERDAGVVCTNETRSTHTLDLSRELSEALGQIFDSQ
RGCDLSISVNVQGEDALGFCGHTVILTANLEAQALWKEPGSNVTMSVDAECVPMVRDLLRYFYSSRRIDITLSSVK
CFHKLASAYGARQLQGYCASLFAILLPQDPSFQMPLDLYAYAVATGDALLEKLCLQFLAWNFEALTQAEAWPSVP
TDLLQLLLPRSDLAVPSELALLKAVDTW SWGERASHEEVEGLVEKIRFPMMLPEELFELQFNLSLYWSHEALFQK
KTLQALEFHTVPFQLLARYKGLNLTEDTYKPRIYTSPTWSAFVTDSSWSARKSQLVYQSRXGAFGQIFF

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FIGURE 4991

GTGCCTCCCATGAGGAGGTGGAGGGCTTGGTGGAGAAGATCCGCTTCCCCATGATGCTCCCTGAGGAGCTCTTTG
AGCTGCAGTTCAACCTGTCCCTGTACTGGAGCCACGAGGCCCTGTTCCAGAAGAAGACTCTGCAGGCCCTGGAAT
TCCACACTGTGCCCTTCCAGTTGCTGGCCCCGTACAAAGGCCTGAACCTCACCGAGGATACCTACAAGCCACGGA
AGTCACAACCTGGTCTATCAGTCCAGACGGGGGCCTTTGGTCAAATATTCTTCTGATTACTTCCAAGCCCCCTCTG
ACTACAGATACTACCCCTACCAGTCCTTCCAGACTCCACAACACCCCAGCTTCCTCTTCCAGGACAAGAGGGTGT
CCTGGTCCCTGGTCTACCTCCCCACCATCCAGAGCTGCTGGAACCTACGGCTTCTCCTGCTCCTCGGACGAGCTCC
CTGTCTGGGCCCTCACCAAGTCTGGCGGCTCAGATCGCACCATTGCCCTACGAAAACAAAGCCCTGATGCTCTGCG
AAGGGCTCTTCGTGGCAGACGTCACCGATTTCGAGGGCTGGAAGGCTGCGATTCCCAGTGCCCTGGACACCAACA
GCTCGAAGAGCACCTCCTCCTTCCCCTGCCCGGCAGGGCACTTCAACGGCTTCCGCACGGTCATCCGCCCTTCT
ACCTGACCAACTCCTCAGGTGTGGACTAGACGGCGTGGCCCAAGGGTGGTGAGAACCGGAGAACCCCCAGGACGCC
CTCACTGCAGGCTCCCCCTCCTCGGCTTCTTCTCTGCAATGACCT

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FIGURE 4992A

TGCTCCCTCCAAATCCAAGTCCAGCAGTTCTCTCTTCTCTCCACGTTCATCTCTCTTCTCTCAGATGAAGAGGA
TGACAGTGACTTAGATGCTAAGAGGGGTCCCCGGGGCCGCGAGACCCACCCAGTGCCGCAGAAGAAGGCCAGAT
CCTGGTGGCCAAACCCGAGCTGAAGGATCCCATCCGGAAGAAGCGGGGACGAAAGCCCCCTGCCCCAGAGCAAAA
GGCAACCCGAAGACCCGTGAGCCTGGCCAAGGTGCTGAAGACCCGCCGGAAGGATCTGGGGGCCCCGGCCAGCAA
GCTGCCCCCTCCACTCAGCGCCCCCGTTGCAAGGCTGGCAGCTCTGAAGGCCACGCCAAGGAGGCCTGTGGCGG
CCCCAGTGCCATGGCCACCCAGAGAACTTGCCAGCCTAATGAAGGGCATGGCCAGTAGCCCCGGCCGGGGTGG
CATCAGCTGGCAGAGCTCCATCGTGCACTACATGAACCGGATGACCCAGAGCCAGGCCAGGCTGCCAGCAGGTT
GGCGCTGAAGGCCAGGCCACCAACAAGTGCGGCCCTCGGGCTGGACCTGAAGGTGAGGACGCAGAAAGGGGAGCT
GGGAATGAGCCCTCCAGGAAGCAAAATCCCGAAGGCCCCAGCGGTGGGGCTGTGGAGCAGAAAGTGGGGAACAC
AGGGGGCCCCCGCACACCCATGGTGCCAGCAGGGTGCTGCTGGGTGCCAGGCCCCAGCCAGCACCCACCCA
GGAGCTGAGCCTCCAGGTCTTGACTTGCAAGATGGCATGCCCGGGGTGGGTCTCTTGCCCCGCA
CGCCACCGCCACCAAGGTGTCCCGGCCACCAACCCAGCCCCCTGGGAAGGGCACTGGGAGTGGCCTCATTGGGGC
CAGCGGGGCCACCATGCCCCACGACACAAGCAAAAGTGAGAAGCTGGCTTCCAGAGCAGTGGCGCCACCCACCCC
TGCCAGCAAGAGGGACTGTGTCAAGGGCAGTGCTACCCCCAGTGGGCAGGAGAGCCGCACAGCCCCCGGAGAAGC
CCGCAAGGCGGCCACACTGCCAGAGATGAGCGCAGGTGAGGAGAGTAGCAGCTCGGACTCCGACCCCGACTCCGC
CTCGCCGCCAGCACTGGACAGAACCCGTCACTGTCCGTTTCCAGACCAGCCAGGACTGGAAGCCACCCGCAGCCT
CATCGAGCACGTATTTGTACCGACGTCACTGCCAACCTCATCACCGTCACAGTGAAGGAGTCTCCCACCAGCGT
GGGCTTCTTCAACCTGAGGCATTACTGAAGCCCCGGCGCCACCAGCTGCGCGGTCTTACTCCCCTTCCCTGCCTA
TGGTGTGCTTGGCTAAGTGACTCCAGCCCCAAGCCCCCTCAAGAGTCTGGGTGCGGGGAGGAGGAGTGGGTGGC
CTCCTTGATGGGCAGGCTTGGAAGGGACTTCTCCCGCACCCCACTCTGTCCAGGACATAGGGCAGGGGGCCTCA
CTGCCCTTGTGGTCTCCACCTTGTCTTCTACCTCTGCAGGCCTCTTGTCTCTCCCTCTTGCCCTCAGGAAACCCGG
TGGCACCTGTGGCTCCAGGTGACTGTCTTGAACAGAGCGGGCTTCTTCATGGCTGCGTTGTTGCTGAGTTTGAAC
TGCTCTCCCTGGCTGCGTGACTGAATCACAGCTTTGGTCCCTGTCTTGCAAGGGGCTGAGGTGTGAGGAGGGA
CTTCTGGCCACCTTGCCCTCAGCCCTGGAGTGGGCAGAGAGTATTGTGGGGAGGCATGGCCAGTGGGACTAGTG
TTCCCTCACTTGCCACAGCTTTTGGGAGATGGGGTGGGCAGGGGTGGTCTGGCTGGCATTGCCTGAGCCGGC
AGTGATGAAGTGGGGAGCTTGCCCTTGACAGGTGGGGGTGGCTGGGGCCTTAATGTGAAAAGACAGTGGCAGGC
AGCTGGAGTAGAGCGAGCCAGCAGCCCTAAAAGGCTGCCTTCATGGCCATCTAGCCCCAGTTCAGGGCAGCATC
CATAGCCACAAGCCAGCGTGGGTGGGGCGGGGTGGTCCCACAGCTGGGTTCACCTGAAGAGCCTCCGTGCCT
CGGAGCAGGAGAGGCAGGCTATGGCTGCCACCTCCCTCCTGCCTGTGTCCAGTGAGAACTGACCTGAGTCCCC
TTCCAAACCCAGACCACCTCCTGCCCCAGGCCCACTGAAGCATGTTCCATTCTAAAAAGCCAGAGTTTCACTG
TGTCCTCAAGGAAAACCAAAAGTGGAGGTGCTCAGGTCCAGGGGAGTCCAGTGGGCAGGACCTTGGCAGGCAAGC
CCTCCCTTCACTCCAGGACCTACCTTCTGCTAGTAAAGGACTGGCTTCATTCTAATTATGGCCACAGACTGC
CCCGGAGACCTGGAGGACAGCAGTGCTGGCACTTGGGTGTCCATGGGCCCGTCTGCCGCTCTGCCTGTGCTGCA
AGTGTGGCCGTGGGTCCAGCCAACAACCTCCCTACGTCTGTGTGGGGCCCTGCCAAGTGGATGAGGCATTCTCT
TGAGGAGTATCATTTTCCCTGACAATCCCCATCACCTTTAGGGGTTCCCTGCTTGGCTCCTTTCCAGCTGAAAAA
CTAGACCTGTGCCATTGGGGAAGCTGGACAAAAGTCTAGGGGGCCCCGCTGGTAGAGGGTCCCGGAAGCTGGATC
TGTCAGCCTCGGCCCTGAGGCCCTGTAACTCAAGACTGTGAGCTGCCTCTAGGTGGTACGTCTGGGAGCTAG
CTTGATGGCTTCTGACCAGTATCAGGATTTCTGTTCTGAGAGCAGCGTGGGCAGCAAGGCAGGGCAGCCAGAG
GTGGCAGCGCAGGCAATCTGGTCACTAGGTCTTTGTGATGCCAAAAATAAAAGAGGGTGGGGTGGGTGCTTTCT
GTTCTCTGATTGGATGGAGTCCGCCAGCAGGCATGGGGCTACATTCCAGTGCCTGACTATAGGGAGGCACTCCT
GATTCCATGGAGCAGCCCGACTTTGAGAATGGGCTCTGGTTTGGGGGGCAGGCGTACCAGACTGCAAGACCC
CCCAGTACCTCACCGTGCCAAATAGGAAGAGGTGGCCTTGGTGTAGCCAAATGGATCTTTTTAACAGTGTGCCTT
TGGGGAGGGACCCATGTCCATGGCTTCGTTGAGGGCCATCCATATGCCAGCTGGGGGCCAGCCACAGTGGCCAT
ATTGGCTGCAGCAGGAATGGTGCCACCTCGGCGAATTGAAGGGCTAAGAGTCCAGATAGCTAGGCCAGAGCTG
GAAGCAGACAGTAAGGGGAAGAGCTGCTCCACAGAAGAGGGAGAGATTCCAGCTCACTGCGCAGCCTGGGAGGA
GGCGTGGATCTTGGCAGCTGAGCCTCAGGCACCAGCCTCCCTGTGCTCGACAGCAAAAGTCTTGACTCCTTCTG
CTGAGCACTGTGCTACCTTCACTGCTCCAAAGCCAGACTAACAGCTCTCCAAGCCCTTGGGGTGA CTGCGCTTCC
AGGAGCTGTGGAGAAATGAGGATGTCTGTCCCTGTCTGCCTGGGCAGGCCAGATTCTCCCCAGCAGCCGGGTG

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FIGURE 4992B

TCTCCAGACCCTGATTCCGGTGCCTTTCTGTTTACCAGCTACTTCAATCCCAAAGTTTGAATCTGCAGATACCTTA
CTCCCAGCCACTTTGCCTTCTTACTGTGTTGTGTGTTTTCTGGTGCTTCAAGAGCGTGTGCAGGGCAAGTGCC
GTCAGTGGGAAGTGCACCAGATGCTCAGACTTGGTTGTCTTATGTTTACCAATAAAATAAAAGTAGACTTTTTCTA
TTTTTATTTGCTGCTATTTGTGTGTGTGTTTGTGTTTGTGTAGCTAGGTATCTGCACTTCTGACGATGCATTGTT
GCTTTTTTCCCGAAGTCCCGCAGGAAGTGTGGCAATGGTGTGTGTGTGAAATGGTGTGTTAACCGCGTTTTGTTT
GCTCCTGTATTGAATAGGAAGCAGTGGCCAGTCTGTCTTCCTTAGAGATGTTAGCATATTTTTATATGTATATAT
TTTGTACCAAAAAAGAGTGTTTCCTTGTGTTTGGTTACACTCGAAATTCGACCTAGCTGGAGAGGGCTCTGGGCCG
AGAGCTTTCACTAAGGGGAGACTTCAGGGGAGGATCAAGCTTTGAACCAAAGCCAATCACTGGCTTGATTTGTGT
TTTTTAATTAAAAAAAATCATTTCATGTATGCCACTTCTAA

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FIGURE 4993

MATPENLASLMKGMASSPGRGGISWQSSIVHYMNRMTQSQAAASRLALKAQATNKCGLGLDLKVRTQKGELGMS
PPGSKIPKAPSGGAVEQKVGNTGGPPHTHGASRVFAGCPGPGPAPTQELSLQVLDLQSVKNGMPGVGLLARHATA
TKGV PATNPAPGKGTGSLIGASGATMPTDTSKSEKLASRAVAPPTPASKRDCVKGSATPSGQESRTAPGEARKA
ATLPEMSAGEESSSSSDSDPDSASPPSTGQNPSVSVQTSQDWKPTRSLIEHVFVTDVTANLITVTVKESPTSVGFF
NLRHY

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FIGURE 4994A

GCGCCTGCGCGGGAGGCCGCGTACGTGACCCACCGCGACCCGCCCGCGACGAGCTCCCGCCGGTCACGTGAC
CCGCCTCTGCGCGCCCCCGGGCAGCAGCCCGGAGTCTCCGCGGCGCGCCAGGGCGCGCTGCGCGGAGGTGAGCC
GGGCCGGGGCTGCGGGGCTTCCCTGAGCGCGGGCCGGGTGCGTGGGGCGGTGCGCTGCCCGCGCGGCCTCTCAGT
TGGGAAAGCTGAGGTTGTGCGCGGGGCCGCGGGTGGAGGTGCGGGATGAGGCAGCAGGTAGGACAGTGACCTCGG
TGACGCGAAGGACCCCGGCCACCTCTAGGTTCTCCTCGTCCGCCCGTTGTTACAGCGAGGGAGGCTCTGCGCGTGC
CGCAGCTGACGGGGAAGTGGAGCACGGAGCGGGCTGTAGGAGCTGTCCAGGCCATCTCCAACCATGGGAGTGA
GGCACCCGCCCTGCTCCACCGGCTCCTGGCCGTCTGCGCCCTCGTGTCTTGGCAACCGCTGCACTCCTGGGGC
ACATCCTACTCCATGATTTCTGCTGGTTCCCCGAGAGCTGAGTGGCTCCTCCCCAGTCTGGAGGAGACTCACC
CAGCTCACCAGCAGGGAGCCAGCAGACCAGGGCCCCGGGATGCCCAGGCACACCCGGCCGTCCAGAGCAGTGC
CCACACAGTGCAGCTCCCCCAACAGCCGCTTCGATTGCGCCCTGACAAGGCCATCACCAGGAACAGTGCG
AGGCCCCGCGGTGTTGCTACATCCCTGCAAAGCAGGGGCTGCAGGGAGCCCAGATGGGGCAGCCCTGGTGCTTCT
TCCCCACCCAGCTACCCAGCTACAAGCTGGAGAACCTGAGCTCCTCTGAAATGGGCTACACGGCCACCTGACCC
GTACCACCCCACTTCTTCCCCAAGGACATCCTGACCTGCGGCTGGACGTGATGATGGAGACTGAGAACCGCC
TCCACTTCACGATCAAAGATCCAGCTAACAGGCGCTACGAGGTGCCCTTGGAGACCCCGCATGTCCACAGCCGGG
CACCGTCCCCACTCTACAGCGTGGAGTTCTCCGAGGAGCCCTTCGGGGTGATCGTGCGCCGGCAGCTGGACGGCC
GCGTGCTGCTGAACACGACGGTGGCGCCCTGTTCTTTGCGGACAGTTCTTCAGCTGTCCACCTCGCTGCCCT
CGCAGTATATCACAGGCCTCGCCGAGCACCTCAGTCCCTGATGCTCAGCACCAGCTGGACCAGGATCACCTGT
GGAACCGGGACCTTGCGCCACGCCCCGGTGCGAACCTCTACGGGTCTCACCCTTTCTACCTGGCGCTGGAGGACG
GCGGGTGGGCACACGGGGTGTCTCTGCTAAACAGCAATGCCATGGATGTGGTCTGTCAGCCGAGCCCTGCCCTTA
GCTGGAGGTGACAGGTGGGATCCTGGATGTCTACATCTTCTGGGCCAGAGCCCAAGAGCGTGGTGCAGCAGT
ACCTGGACGTGTGGGATACCGTTCTATGCCGCATACTGGGGCTGGGCTTCCACCTGTGCCGTGGGGCTACT
CCTCCACCGCTATCACCAGCCAGGTGGTGGAGAACATGACCAGGGCCCACTTCCCCCTGGACGTCCAGTGGAACG
ACCTGGACTACATGGACTCCCGGAGGGACTTCAGTTCAACAAGGATGGCTTCCGGGACTTCCCGGCCATGGTGC
AGGAGCTGCACCAGGGCGGCCGGCGCTACATGATGATCGTGGATCCTGCCATCAGCAGCTCGGGCCCTGCCGGGA
GCTACAGGCCCTACGACGAGGGTCTGCGGAGGGGGGTTTTATCACCACAGAGACCGGCCAGCCGCTGATTGGGA
AGGTATGGCCCGGTCCACTGCCTTCCCCGACTTCACCAACCCACAGCCCTGGCCTGGTGGGAGGACATGGTGG
CTGAGTTCCATGACCAGGTGCCCTTCGACGGCATGTGGATTGACATGAACGAGCCTTCCAACCTTCATAGGGGCT
CTGAGGACGGCTGCCCCAACAAATGAGCTGGAGAACCCACCTACGTGCCCTGGGGTGGTTGGGGGGACCTCCAGG
CGGCCACCATCTGTGCCTCCAGCCACAGTTTCTCTCCACACACTACAACCTGCACAACCTCTACGGCCTGACCG
AAGCCATCGCCTCCACAGGGCGCTGGTGAAGGCTCGGGGGACACGCCCATTTGTGATCTCCCGCTCGACCTTG
CTGGCCACGGCCGATACGCCGGCCACTGGACGGGGGACGTGTGGAGCTCCTGGGAGCAGCTCGCCTCCTCGTGC
CAGAAATCTGCAGTTAACCTGCTGGGGGTGCCTCTGGTGGGGCCGACGTCTGCGGCTTCTGGGCAACACCT
CAGAGGAGCTGTGTGTGCGCTGGACCCAGCTGGGGGCTTCTACCCCTTCATGCGGAACCACAACAGCCTGCTCA
GTCTGCCCCAGGAGCCGTACAGCTTCAGCGAGCCGGCCAGCAGGCCATGAGGAAGGCCCTCACCTGCGCTACG
CACTCCTCCCCACCTCTACACACTGTTCCACCAGGCCACAGTCCGCGGGGAGACCGTGCCCCGGCCCCCTCTTCC
TGGAGTTCCCCAAGGACTCTAGCACCTGGACTGTGGACCACAGCTCCTGTGGGGGGAGGCCCTGCTCATCACCC
CAGTGCTCCAGGCCGGGAAGGCCGAAGTGACTGGCTACTTCCCTTGGGCACATGGTACGACCTGCAGACGGTGC
CAGTAGAGGCCCTTGGCAGCCTCCACCCCCACCTGCAGCTCCCCGTGAGCCAGCCATCCACAGCGAGGGGCAGT
GGGTGACGCTGCCGGCCCCCTGGACACCATCAACGTCCACCTCCGGGCTGGGTACATCATCCCCCTGCAGGGCC
CTGGCCTCACAACCACAGAGTCCCGCCAGCAGCCCATGGCCCTGGCTGTGGCCCTGACCAAGGGTGGGGAGGCC
GAGGGGAGCTGTTCTGGGACGATGGAGAGAGCTGGAAGTGTGGAGCGAGGGGCTACACACAGGTTCATCTTCC
TGGCCAGGAATAACACGATCGTGAATGAGCTGGTACGTGTGACCAGTGAGGGAGCTGGCCTGCAGCTGCAGAAGG
TGACTGTCTGGCGTGGCCACGGCGCCCCAGCAGGTCTCTCCAACGGTGTCCCTGTCTCCAACCTTCACCTACA
GCCCCGACACCAAGGTCTGGACATCTGTGTCTCGCTGTTGATGGGAGAGCAGTTTCTCGTCAGCTGGTGTAGC
CGGGCGGAGTGTGTTAGTCTCTCCAGAGGGAGGCTGGTTCCCCAGGGAAACAGAGCCTGTGTGCGGGCAGCAGCT
GTGTGCGGGCCTGGGGTTGATGTGTACCTGGAGCTGGGCATAACCATTCGAAGCCGCCGATCGCTTGT
CCACCTCCTGGGCCGGGGCTCTGGCCCCAACGTGTCTAGGAGAGCTTCTCCCTAGATCGCACTGTGGGCCGGG
GCCCTGGAGGGCTGCTCTGTGTTAATAAGATTGTAAGGTTTGGCCCTCTCACCTGTTGCCGGCATGGGGTAGTA

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FIGURE 4994B

TTAGCCACCCCCCTCCATCTGTTCCCAGCACCGGAGAAGGGGGTGCTCAGGTGGAGGTGTGGGGTATGCACCTGA
GCTCCTGCTTCGCGCCTGCTGCTCTGCCCCAACGCGACCGCTGCCCGGCTGCCCAGAGGGCTGGATGCCTGCCGG
TCCCCGAGCAAGCCTGGGAACTCAGGAAAATTCACAGGACTTGGGAGATTCTAAATCTTAAGTGAATTATTTTT
AATAAAAGGGGCATTGGAATC

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FIGURE 4995

TCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAG
CGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAG
CGCTGTGCTCTTCCGCGGACTCTGAATCATGGCGACACGGCCACGATGGCGACCTCGGGCTCGGGCGGAAAGCG
GCTGCTCAAAGAGGAAGACATGACTAAAGTGGAATTTCGAGACCAGCGAGGAGGTGGATGTGACCCCCACGTTTCGA
CACCATGGGCCTGCGGGAGGACCTGCTGCGGGGCATCTACGCTTACGGTTTTGAAAAACCATCAGCAATCCAGCA
ACGAGCAATCAAGCAGATCATCAAAGGGAGAGATGTCATCGCACAGTCTCAGTCCGGCACAGGAAAAACAGCCAC
CTTCAGTATCTCAGTCCCTCCAGTGTGTTGGATATTTCAGGTTTCGTGAACTCAAGCTTTGATCTTGGCTCCCAACAG
AGAGTTGGCTGTGCAGATCCAGAAGGGGCTGCTTGCTCTCGGTGACTACATGAATGTCCAGTGCCATGCCTGCAT
TGGAGGCACCAATGTTGGCGAGGACATCAGGAAGCTGGATTACGGACAGCATGTTGTGCGGGGCACTCCAGGGCG
TGTTTTTGATATGATTTCGTGCGAGAAGCCTAAGGACACGTGCTATCAAAATGTTGGTTTTGGATGAAGCTGATGA
AATGTTGAATAAAGGTTTTCAAAGAGCAGATTTACGATGTATACAGGTACCTGCCTCCAGCCACACAGGTGGTTCT
CATCAGTGCCACGCTGCCACACGAGATTCTGGAGATGACCAACAAGTTTCATGACCGACCCAATCCGCATCTTGGT
GAAACGTGATGAATTGACTCTGGAAGGCATCAAGCAATTTTCGTGGCAGTGGAGAGGGAAGAGTGGAAATTTGA
CACTCTGTGTGACCTCTACGACACACTGACCATCACTCAGGCGGTTCATCTTCTGCAACACCAAAAGAAAGGTGGA
CTGGCTGACGGAGAAAATGAGGGAAGCCAACCTTCACTGTATCCTCAATGCATGGAGACATGCCCCAGAAAGAGCG
GGAGTCCATCATGAAGGAGTTCGGTTCGGGCGCCAGCCGAGTGCTTATTTCTACAGATGTCTGGGCCAGGGGGTT
GGATGTCCCTCAGGTGTCCCTCATCTTAATGATCTCCCTAATAACAGAGAATTGTACATACACAGAATTGG
GAGATCAGGTTCGATACGGCCGGAAGGGTGTGGCCATTAACTTTGTAAGAATGACGACATCCGCATCCTCAGAGA
TATCGAGCAGTACTATTCCACTCAGATTGATGAGATGCCGATGAACGTTGCTGATCTTATCTGAAGCAGCAGATC
AGTGGGATGAGGGAGACTGTTACCTGCTGTGTACTCCTGTTTGGAGTATTTAGATCCAGATTCTACTTAATGG
GGTTTATATGGACTTTCTTCTCATAAATGGCCTGCCGTCTCCCTTCCTTTGAAGAGGATATGGGGATTCTGCTCT
CTTTCTTATTTACATGTAAATAATACATTGTTCTAAGTCTTTTCATTAAAAATTTAAACTTTTCCCAT

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FIGURE 4996A

GACGGGCTGGGGAGGTGGTGCCAGGCTGGTTGCTAGCTGCCGCCGCTGCTCACCCCGCCGTCCGGCCGCTTCAT
TGTCACCGGGCTCGGGGCAGTGTGGGGGTGGCGGGGCGCCAGGTGCGCGACCCGAGGTTTGGGCGCGACTGGT
TCCGCATCCCCTCCCGCGCGGCCGAATCTGCAGGCCCGCGCGCCAGGCAGGCTTCGCGGCTGCGCCCCCGGCC
GCGCAGGACCTGCCTTGCTCCACCATGAAAGGCACCCGGGCCATCGGCAGCGTCCCGAGCGCACGCCAGCAGGTG
TGGACCTGAGTCTGACAGGTCTCCCTCCGCCTGTGTCCCGCGCTCCTGGCAGTGCGCCACCACCAAGCCCATCGT
CCGCTCTGTCTCCGTGGTTCACAGGCAGCGAGCAGAAGAGGAAGGTGCTGGAGGCCACAGGGCCTGGGGGCTCCCA
GGCCATCAACAACCTTAGGAGATCCAACAGCACCCAGCAGGTGAGCCAGCCTCGGAGCGGCTCCCCAGGCCAAC
GGAGCCACAGACTTCCTGATGCTCTTCGAGGGCAGCCCCAGTGGGAAAAAGAGGCCTGCCAGCCTGAGCACAGC
CCCCAGCGAGAAGGGAGCCACCTGGAACGTCTGGATGACCAGCCCCGGGGCTTCACCTTGCCATCCAATGCCCG
GAGTTCCAGTGCCCTTGACTCACCAGCGGGCCCGCGGAGGAAAGAATGCACCGTGGCCCTGGCCCCCAACTTCAC
TGCTAACAAACAGGAGCAACAAGGGAGCAGTGGGCAACTGCGTCACCACCATGGTGACAACCGCTACACCCCTC
GGAGAGGGCGCCTCCGCTCAAGAGCTCCAACCAGACTGCCCCCTCCCTCAACAACATCATCAAGGCAGCCACCTG
TGAGGGCAGTGAGAGCAGCGGCTTTGGGAAGCTGCCGAAGAATGTCTCCAGTGCCACCCACTCAGCCCGGAACAA
TACTGGGGGACAGCACGGGCTTGCCAGGCGGAAGGAGGTGACGGAGGAGGAGGCTGAGAGGTTTATCCACCAGGT
GAACCAGGCCACTGTACCATCCAGCGCTGGTACCGGCACCAGGTGACAGCGGCGCGGAGCAGGAGCTGCCCGCCT
GGAGCACTTGCTTACGGCCAAGCGGGAGGAGCAGCGGCAGCGGTGACGGCAGGGGGACCTCTTGAGCCTGCACCA
GCAGAAAGAGGCAGCCAGGAGGAAGGCCCGGGAGGAGAAGGCACGCCAAGCCAGGCGAGCAGCCATTGAGGAGCT
GCAACAGAAACGAGCCCTGAGAGCCCAGAAGGCGAGCACTGCCGAGCGTGGGCCACCTGAGAATCCCAGGGAGAC
CAGAGTGCCAGGAATGCGGCAGCCTGCTCAGGAGCTGTCCCCCACACAGGCGGCACTGCCACCAGGCCCTCAA
GGCCAACAATACTGGTGGTGGCCTCCCTGCTGCAGGCCCCGGAGACCGCTGCTGCCACCTCCGACTCATCCCC
AGAACCACAGCAGCCTCCAGAGGACAGGACGCAAGGACGTTCTTGCCAGGATGCAGCTGGGGACAACCTGGAGAT
GATGGCCCCGAGCAGGGGGAGCGCCAAGTCCAGGGGGCACTGGAGGAGCTGCTGCACACACTGCAGCTGCTGGA
GAAGGAGCCGACGTGCTGCCCCGCCCCAGGACCCATCACAGGGGCAGATACGCTGGGCCAGCGAGGTGACCAC
GGAGGATGACGCCAGCTCTCTGACAGCTGACAACTTGAGAAATTTGGAAAATCAGTGCGTTCCCCGAACCTCC
TGAGGATGGGACGCTGCTATCGGAGGCCAAGCTACAAAGCATCATGAGCTTCTTGACGAGATGGAGAAGTCTGG
GCAGGACCAGCTGGACTCCAGCAGGAGGGGTGGGTGCCGGAGGCGGGGCGGGGCCCCCTGGAGCTGGGGTCCGA
GGTGAGCACGTCTGTGATGCGGCTGAAGCTGGAGGTGGAGGAGAAGAAGCAGGCCATGCTGCTGCTGCAGAGAGC
GCTGGCGCAGCAGCGAGACCTCACGGCCCCGCGGGTCAAGGAGACAGAGAAGGCGCTGAGCCGGCAGCTGCAGCG
GCAGAGGGAGCACTACGAGGCCACCATCCAGCGCACTTGCCCTTCATTGACCAGCTGATTGAGGACAAGAAGGT
CCTGAGTGAAAAGTGCAGGCTGTGGTGGCCGAGCTGAAGCAGGAGGACCAGAGATGCACCGAGCGTGTGGCCCA
GGCACAGGCGCAGCACGAGCTGGAGATTAAAAAACTCAAAGAATTAATGAGCGCCACCGAGAAAGCCCGCGGGA
GAAGTGGATCAGTGAGAAAACCAAGAAGATCAAGGAGGTCACTGTCCGAGGTCTGGAGCCCGAGATCCAGAAGCT
GATTGCAAGGCACAAGCAGGAAGTGCAGGAGGTCAAGAGCCTGCACGAGGCGGAGCTGCTGCAGTCGGATGAGCG
GGCCTCGCAGCGCTGCCTGCGCCAGGCCGAGGAGCTGCGGGAGCAGCTGGAGCGGGAGAAGGAGGCGCTGGGCCA
GCAGGAGCGCGAACGTGCTCGGCAGCGGTTCCAGCAGCACCTGGAGCAGGAGCAGTGGGCGCTGCAGCAGCAACG
GCAGCGGCTGTACAGTGAGGTGGCTGAGGAGAGGGAGCGGCTGGGCCAGCAGGCAGCCAGGCAGCGGGCGGAGCT
GGAAGAGCTGAGGCAGCAGCTGGAGGAGAGCAGCTCTGCACTGACCCGAGCCCTGAGGGCTGAGTTTGAGAAGGG
CAGGGAGGAGCAGGAGCGCGGCACCAGATGGAGCTGAATAACCTGAAGCAGCAGCTGGAGCTGGAGAGGCAGGC
GTGGGAGGCCGGCCGCACCAGGAAGGAGGAGGCGTGGCTGCTGAACCGGGAACAGGAGCTGAGGGAAGAAATCCG
GAAAGGCCGGGACAAGGAGATTGAGCTGGTCATTACCGGCTGGAGGCCGACATGGCGCTGGCCAAGGAGGAGAG
TGAGAAGGCTGCCGAGAGCCGCATCAAGCGCTTACGGGACAAGTACGAGGCCGAGCTCTCCGAGCTGGAGCAGTC
GGAGCGGAAGCTTCAGGAGCGGTGCTCGGAGCTGAAGGGCCAGCTTGGGGAGGCCGAGGGCGAGAATCTGCGTCT
GCAGGGCCTTGTGCGGCAGAAGGAGCGGGCGCTGGAGGATGCGCAGGCGGTGAACGAGCAGCTTTCTAGCGAGCG
CAGCAACCTGGCCCAGGTGATCCGCCAGGAGTTCGAGGACCGGCTGGCAGCCTCTGAGGAGGAGACGCGGCAGGC
CAAGGCCGAGCTGGCCACGCTGCAGGCCCGCCAGCAGCTGGAGCTGGAGGAGGTGCACCGGAGGGTGAAGACAGC
CCTCGCGAGGAAGGAGGAGGCCGTGAGCAGCCTCCGGACACAACATGAGGCTGCGGTGAAGCGGGCCGACCACCT
GGAGGAGCTGCTGGAGCAGCACAGGAGGCCACGCCAAGTACCAAGTGACCAGGGATGCCGGGAACACTGTCGAA
GAACGGAAGGCAGAGGACAGAGGCTGGACGTGGGCCAGAGGCCACAGGGACGCCACCTGCCCCCACAGAGG

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FIGURE 4996B

CTGGTGGTTGAGATGCCACGGCTAAGCACCTGTGGCTGCATTTTAACAGTAAAGGAGGCCGTTGTTTTTC

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FIGURE 4997

MKGTRAIGSVPERSPAGVDLSLTGLPPPVSRRPGSAATTKPIVRSVSVVTGSEQKRKVLEATGPGGSQAINNLRR
SNSTTQVSQPRSGSPRPTEPTDFLMLFEGSPSGKKRPASLSTAPSEKGATWNVLDDQPRGFTLPSNARSSSALDS
PAGPRRKECTVALAPNFTANNRSNKGAVGNCVTTMVHNRYTPSERAPPLKSSNQATAPSLNNIIKAATCEGSESSG
FGKLPKNVSSATHSARNNTGGSTGLPRRKEVTEEEAERFIHQVNQATVTIQRWYRHQVQRRGAGAARLEHLLQAK
REEQRQRSGEGLTLLDLHQQKEAARRKAREEKARQARRAIQELQQKRALRAQKASTAERGPPENPRETRVPGMRQ
PAQELSPTPGGTAHQALKANNTGGGLPAAGPGDRCLPTSDSSPEFQQPPEDRTQDVLQAQDAAGDNLEMMAPSRGS
AKSRGPLEELLHTLQLEKEPDVLP RP RTHHRGRYAWASEVTTEDDASSLTADNLEKFGKLSAFPEPPEDGTLLS
EAKLQSIMSFLDEMEKSGDQLDSQQEGWVPEAGPGPLELGSEVSTSMRLKLEVEEKKQAMLLLQRALAQQRDL
TARRVKETEKALSRQLQRQREHYEATIQRHLEFIDQLIEDKKVLSEKCEAVVAELKQEDQRC TERVAQAQAQHEL
EIKKLKELMSATEKARREKWISEKTKKIKEVTVRGLEPEIQKLIARHKQEVRRRLKSLHEAELLQSDERASQRCLR
QAEELREQLEREKEALGQQRERARQRFQQHLEQEQWALQQQRQRLYSEVAEERERLGQQAARQRAELEELRQQL
EESSALTRALRAEFEGREEQERRHQMELNTLKQQLERQAWAEGRTRKEEAWLLNREQLREEIRKGRDKEI
ELVIHRLEADMALAKEESEKAAESRIKRLRDKYEAELSELEQSERKLQERCSELKGQLGEAEGENLRLQGLVRQK
ERALEDAQAVNEQLSSERSNLAQVIRQEFEDRLAASEEETRQAKAELATLQARQQLELEEVRHVKTALARKEEA
VSSLRTQHEAAVKRADHLEELLEQHRRPTPSTK

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FIGURE 4998

CAGGTGAGGCGGAACCAACCCTCCTGGCCATGGGAGGGGCCGTGGTGGACGAGGGCCACAGGCGTCAAGGCCCT
GACGGCGGCTGGGCGTGAGGCGTGCTCTTCGGCTGTTTCGTCATCACTGGCTTCTCCTACGCCCTTCCCCAAGGCC
GTCAGTGTCTTCTTCAAGGAGCTCATACAGGAGTTTGGGATCGGCTACAGCGACACAGCCTGGATCTCCTCCATC
CTGCTGGCCATGCTCTACGGGACAGGTCCGCTCTGCAGTGTGTGCGTGAACCGCTTTGGCTGCCGGCCCGTCATG
CTTGTGGGGGGTCTCTTTGCGTCGCTGGGCATGGTGGCTGCGTCCTTTTGCCGGAGCATCATCCAGGTCTACCTC
ACCACTGGGGTCAACACGGGGTGGGTTTGGCACTCAACTTCCAGCCCTCGCTCATCATGCTGAACCGCTACTTC
AGCAAGCGGCGCCCCATGGCCAACGGGCTGGCGGCAGCAGGTAGCCCTGTCTTCTGTGTGCCCTGAGCCCGCTG
GGGCAGCTGCTGCAGGACCGCTACGGCTGGCGGGGCGGCTTCCTCATCCTGGGCGGCCTGCTGCTCAACTGCTGC
GTGTGTGCCGCACTCATGAGGCCCCCTGGTGGTACGGCCAGCCGGCTCGGGGCAGCCGCGACCCTCCCGGCGCC
TGCTAGACCTGAGCGTCTTCCGGGACCGCGGCTTTGTGCTTTACGCCGTGGCCGCTCGGTTCATGGTGTGGGGC
TCTTCGTCCCGCCCGTGTTCGTGGTGATGACGCCAAGGACCTGGCGTGCCCGACACCAAGGCGCCTTCCTGCTCA
CCATCCTGGGCTTCATTGACATACTTACGCCCGCGCGGGCTTCGTGCGGGGCTTGGGAAGGTGCGGCCCTATCCG

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FIGURE 4999

GCGGGCGGGCGGGCTCGGAGTCGCCGGGAGCTGCCAGGCTGCTCCGCGCGCCGCTGCGGGGCCATGATCCGGAAC
GGGCGCGGGGGCTGCAGGCGGCGCAGAGCAGCCGGGCCCCGGGGGCGAGGCGCGCCGTGAGGGTGTGGTGCGATGGC
TGCTATGACATGGTGCAATTACGGCCACTCCAACCAGCTGCGCCAGGCACGGGCCATGGGTGACTACCTCATCGTA
GGCGTGACACCGATGAGGAGATCGCCAAGCACAAGGGGCCCCCGGTGTTCACTCAGGAGGAGAGATACAAGATG
GTGCAGGCCATCAAATGGGTGGACGAGGTGGTGCCAGCGGCTCCCTACGTCACTACACTAGAGACCCTGGACAAA
TACAACTGTGACTTCTGTGTTACGGCAATGACATCACCCTGACTGTAGATGGCCGGGACACCTATGAGGAAGTA
AAGCAGGCTGGGAGGTACAGAGAATGCAAGCGCACGCAAGGGGTGTCCACCACAGACCTCGTGGGCCGATGCTG
CTGGTAACCAAAGCCCATCACAGCAGCCAGGAGATGTCCTCTGAGTACCGGGAGTATGCAGACAGTTTGGCAAG
TGCCCTGGTGGGCGGAACCCCTGGACCGGGGTATCCCAGTTCCTGCAGACATCTCAGAAGATCATCCAGTTTGCT
TCTGGGAAGGAGCCCCAGCCAGGGGAGACAGTCATCTATGTGGCTGGTGCCTTCGACCTGTTCCACATCGGGCAT
GTGGACTTCCTGGAGAAGGTGCACAGGCTGGCAGAGAGGCCCTACATCATCGCGGGCTTACACTTTGACCAGGAG
GTCAATCACTACAAGGGGAAGAATAACCCCATCATGAATCTGCATGAACGGACTCTGAGCGTGCTGGCCTGCCGG
TACGTGTCAGAAGTGGTGATTGGAGCCCCGTACGCGGTACAGCAGAGCTCCTAAGTCACTTCAAGGTGGACCTG
GTGTGTCACGGCAAGACAGAAATTATCCCTGACAGGGATGGCTCCGACCCATACCAGGAGCCCAAGAGAAGGGGC
ATCTTCCGTGAGATTGACAGTGGCAGCAACCATCACCAAAGACTCATCGTCAGCGGATTATCACAAACAXXXXXX
XXXXXGAGGCGCTAAACGAGAAGAAGGAAGCCAAGGAGCTCGCCTTCCTGGAGGTGCCAGGCAGCAGGCGCACAG
CCCTGGGGAGCGGATGGTACTTCTAACCTGGCAGAGCCCTGCCGGCCCTCCCCCTGCTCTGCTTCTGCGCCTTC
TGCGTTTGGACATAGGACTCTGCAGGGCCGCCCTCTCTAACTGGCCTGGCTCTGGAAGGGCTGGTGAGGACTCTG
CCTCCTTGCTGCTTACAAGGTGCCTGGTTTGCAGCAGGCTCTCCGCTCTTTCCAGCAAAGCTGCTCAGAGAGGG
TGTCCAGCACAGTGGAGAGGCCGGAAGTGAGACGGGCAGACGGCACCTGCAGCCTGAAACGCACCGCTCCTGCGT
GCGCCCCACCTGGTCCCCGGATGCCCCACCACCTGGACAGAGGCCACACTGACTGCCCCACCCAGCTGTGGCGG
GAGGTGCAGAGCAGAGGGCTTTAGGGAGCAGTGAAGTGCAGGCTCACCCTTTAGTTCTCTGGGTGTAGACCACACCA
CCTCCCACTGGGCACCCCCAACACGGTGTCTGCCACCCAGCGCCTGGCTCCAGGAAAACACGCTTGCTTCTCT
TCCGGCAGCTTCGCCACTCTCCTTATGGACTCTGTTCTGTTTGTACATGGCTGACGGAAATCTCTTTGGTACAA
CCGAATAAAGCCTGGTGGCAGTGCTGCGCGGGGCTCCAGCC

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FIGURE 5000

TGACCTGACCTCTCTCCTCTCCCCCTCACCCCTCCTGCCCCCTGGCCACTGCAGGATCAGGAGGGGAGAAGAAGGAGC
CTCTGCTGCCTCCCAGGCTGCTGGGACTGGGCTGGTTTTGTCCTTGAAGTGGTCAGGATACAGGACAAGGGCAGC
CCCACCCCATCCAGCCTGGGCTCCCCGCAGACCCTTGCTGCTCCCGTGGCCTGGACA'CGCTGGGGAGCTTCTCAC
ACCTACCCCAAGGCTGACCCTGAGGTGCTGCTGCTGGGTCTGCTTGGCTCTGGGGTGTGCTGGGAGGGTCACCAG
GTCCCTTTTCCTTCCTGTGCCCTCTGAAAGCTAAGTGTCTGTGTGGCTGTGGAGCTCGAGGGTCTGTGAATAAAG
GCGGCGGCACTGGG

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FIGURE 5001

CCCCTACACACCGTCCGTTACCCCCGTCTCTTCCTTCTGCTTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGC
AGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCATGATGTACTTTTTCATACATGAGTCTGTCCAGAGTGCTTGC
TACCGTGTTTCGGAGTCTCGCTGCCTCCCTCCCGCGGGAGGTTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATT
TTTAGACATTTTTCGACATCAGGGGTGTCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCG
GCACAGGCCTGGGCCTTCCCCTTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCC
TCTCTACAGCACGGCCTGTGGCCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGG
ATGCTGGAGCTGAATCAGACGCTGACAGTTCTTCAGGCATTCTATTTTACAATCGAATTGAACACATTGGCCAA
ATAAAGTTGAAATTTT

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FIGURE 5002

GGCACGAGGGGGCGGCCGACGACGTTTCGTCATTTAGTGCGGGAGGGATCCTGAACCGCGCGGCCGAACCCTCCGG
TGTCCCGACCCAGGCTAAGCTTGAGCATGGCTGAGCAGGAGCCACAGCCGAGCAGCTGGCCCAGATTGCAGCGG
AGAACGAGGAGGATGAGCACTCGGTCAACTACAAGCCCCGGCCCAGAAGAGCATCCAGGAGATCCAGGAGCTGG
ACAAGGACGACGAGAGCCTGCGAAAGTACAAGGAGGCCCTGCTGGGCCGCGTGGCCGTTTCCGCGAGACCCCAACG
TCCCCAACGTCGTGGTGACTGGCCTGACCCTGGTGTGCAGCTCGGCCCGGGCCCCCTGGAGCTGGACCTGACGG
GCGACCTGGAGAGCTTCAAGAAGCAGTCGTTTGTGCTGAAGGAGGGTGTGGAGTACCGGATAAAAAATCTCTTTCC
GGGTAAACCGAGAGATAGTGTCCGGCATGAAGTACATCCAGCATACGTACAGGAAAGGCGTCAAGATTGACAAGA
CTGACTACATGGTAGGCAGCTATGGGCCCCGGGCCGAGGAGTACGAGTTCTTGACCCCGTGGAGGAGGCACCCA
AGGGTATGCTGGCCCCGGGCAGCTACAGCATCAAGTCCCGCTTCACAGACGACGACAAGACCGACCACCTGTCT
GGGAGTGGAAATCTCACCATCAAGAAGGACTGGAAGGACTGAGGCCAGCCAGAGGCGGGCAGGGCAGACTGACGGA
CGGACGACGGACAGGCGGATGTGTCCCCCAGCCCCCTCCCCCTCCCATACCAAAGTGCTGACAGGCCCTCCGTG
CCCCCTCCACCCCTGGTCCGCTCCCTGGCCTGGCTCAACCGAGTGCCCTCCGACCCCCCTCTCAGCCCTCCCCCA
CCCACAGGCCCAGCCTCCTCGGTCTCCTGTCTCGTTGCTGCTTCTGCCTGTGCTGTGGGGGAGAGAGGCCGAGC
CAGGCCTCTGCTGCCCTTTCTGTGCCCCCAGGTTCTATCTCCCCGTCACACCCGAGGCCTGGCTTCAGGAGGGA
GCGGAGCAGCCATTCTCCAGGCCCGTGGTTGCCCTTGGACGTGTGCGTCTGCTGCTCCGGGGTGGAGCTGGGGT
GTGGGATGCACGGCCTCGTGGGGGCGGGCCGTCTCCAGCCCCGCTGCTCCCTGGCCAGCCCCCTTGTGCTGT
CGGTCCCGTCTAACCATGATGCCTTAACATGTGGAGTGTACCGTGGGGCCTCACTAGCCTCTAACTCCCTGTGTC
TGATGAGCATGTGGCCTCCCCGTCCCTTCCCCGGTGGCGAACCCAGTGACCCAGGGACACGTGGGGTGTGCTGC
TGCTGCTCCCAGCCCACCAAGTGCCCTGGCCAGCCTGCCCCCTTCCCTGGACAGGGCTGTGGAGATGGCTCCGGCG
GCTTGGGGAAAGCCAAATTGCCAAACTCAAGTCACCTCAGTACCATCCAGGAGGCTGGGTATTGTCTGCTCT
GCCTTTTCTGTCTCAGCGGGCAGTGCCAGAGCCCCACACCCCCCAAGAGCCCTCGATGGACAGCCTCACCCACC
CCACCTGGGCCCAGCCAGGAGCCCCGCTGGCCATCAGTATTTATTGCCTCCGTCCGTGCCGTCCCTGGGCCACT
GGCTGGCGCCTGTTCCCCCAGGCTCTCAGTGCCACACCCCCGGCAGGCCTTCCCTGACCCAGCCAGGAACAAA
CAAGGGACCAAGTGACACATTGCTGAGAGCCGTCTCCTGTGCTTCCCCGCCCCATCCCCGGTCTTCGTGTTGT
GTCTGCCAGGCTCAGGCAGAGGCGCCTGTCCCTGCTTCTTTCTGACCGGAAATAAATGCCCCTGAAGGAAAAA
AA

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FIGURE 5003

MAEQEPTAEQLAQIAAENEDEHSVNYKPPAQKSIQEIQELDKDDESLRKYKEALLGRVAVSADPNVPNVVVTGL
TLVCSSAPGPLELDLTGDLESFKKQS FVLKEGVEYRIKISFRVNREIVSGMKYIQHTYRKGVKIDKTDYMGVGSYG
PRAEYEF LTPVEEAPKGMLARGSYSIKSRFTDDDKTDHLSWEWNLTIKKDWKD

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FIGURE 5004

CTCCGGACAGCATGAGCGTGGGCTTCATCGGCGCTGGCCAGCTGGCTTTTGCCCTGGCCAAGGCTTTCACAGCAG
CAGGCGTCTTGGCTGCCCCACAAGATAATGGCTAGCTCCCCAGACATGGACCTGGCCACAGTTTCTGCTCTCAGGA
AGATGGGGGTGAAGTTGACACCCCAACAAGGAGACGGTGCAGCACAGTGATGTGCTCTTCTGGCTGTGAAGC
CACACATCATCCCCCTTCATCCTGGATGAAATAGGCGCCGACATTGAGGACAGACACATTGTGGTGTCTGCGCGG
CCGGCGTCACCATCAGCTCCATTGAGAAGAAGCTGTGAGCGTTTCGGCCAGCCCCAGGGTCATCCGCTGCATGA
CCAACACTCCAGTCGTGGTGCAGGAGGGGGCCACCGTGTATGCCACAGGACGCACGCCAGGTGGAGGACGGGAG
GCTCATGGAGCAGCTGTGAGCAGCGTGGGCTTCTGCACGGAGGTGGAAGAGGACCTGATTGATGCCGTCACGGG
GCTCAGTGGCAGCGGCCCCGCCTACGCATTACAGCCCTGGATGCCCTGGCTGATGGGGGTGTGAAGATGGGACT
TCCAAGGCGCTGGCAGTCCGCCTCGGGGCCAGGCCCTCCTGGGGGCTGCCAAGATGCTGCTGCACTCAGAACA
GCACCCAGGCCAGCTCAAGGACAACGTCAGCTCTCCTGGTGGGGCCACCATCCATGCCTTGATGTGCTGGAGAG
TGGGGGCTTCCGCTCCCTGCTCATCAACGCTGTGGAGGCCTCCTGCATCCGCACACGGGAGCTGCAGTCCATGGC
TGACCAGGAGCAGGTGTACACAGCCGCCATCAAGAAGACCATCCTGGACAAGGTGAAGCTGGACTCCCCTGCAGG
GACCGCTCTGTACCTTCTGGCCACACCAAGCTGCTCCCCCGCAGCCTGGCCCCAGCGGGCAAGGATTGACACGT
CCTGCCTGACCACCATCCTGCCACCACCTTCTTCTCTTGTCACTAGGGGGACTAGGGGGTCCCCAAAGTGGCC
CACTTCTGTGGCTCTGATCAGCGCAGGGGCCAGCCAGGGACATAGCCAGGGAGGGGCCACATCACTTCCCACTG
GAAATCTCTGTGGTCTGCAAGTGCTTCCAGCCCAGAACAGGGGTGGATTCCCCAACCTCAACCTCCTTTCTTCT
CTGCTCCCAAACCATGTGAGGACCACCTTCTCTAGAGCTCGGGAGCCCCGGAGGGTCTTACCCACTCCTACTCC
AGTATCAGCTGGCACGGGCTCCTTCTGAGAGCAAAGGTCAAGGACCCCCCTCTGTGAAGGCTCAGCAGAGGTGGG
ATCCCACGCCCCCTCCCGGCCCTCCCTGCCCTCCATTACAGGGAGAAACCTCTCCTTCCCGTGTGAGAAGGGCCA
GAGGGTCCAGGCATCCCAAGTCCAGCGTGAAGGGCCACAGCCCCCTCTTGGCTGCCAAGCACGCAGATCCCATGGA
CATTGGGGAAAGGGTCTCCTTGGGCTGCTGGTGAACCTTCTGTGGCCACCACCTCCTGCTCCTGACCTCCCTGGGA
GGGTGCTATCAGTTCGTCTGCTGGCCCTTTCAGTTTTATAAGTTGGTTTCCAGCCCCCAGTGTCTGACTTCTGTC
TGCCACATGAGGAGGGAGGCCCTGCCTGTGTGGGAGGGTGGTTACTGTGGGTGGAATAGTGGAGGCCTTCAACTG
ATTAGACAAGGCCCGCCCACATCTTGGAGGGCATCTGCCTTACTGATTAAAATGTCAATGTAATCT

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FIGURE 5005

MEQLLSSVGFCTEVEEDLIDAVTGLSGSGPAYAFTALDALADGGVKMGLPRRLAVRLGAQALLGAAKMLLHSEQH
PGQLKDNVSSPGGATIHAIHVLESGGFRSLLINAVEASCIRTRELQSMADQEQVSPAAIKKTILDKVKLDSPAGT
ALSPSGHTKLLPRSLAPAGKD

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FIGURE 5006

GACATGGAGCTGTTTCCTCGCGGGCCGCCGGGTGCTGGTCACCGGGGCAGGCAAAGGTATAGGGCGCGGCACGGTC
CAGGCGCTGCACGCGACGGGCGCGGGTGGTGGCTGTGAGCCGGACTCAGGCGGATCTTGACAGCCTTGTCGCGC
GAGTGCCCCGGGGATAGAACCCGTGTGCGTGGACCTGGGTGACTGGGAGGCCACCGAGCGGGCGCTGGGCAGCGTG
GGCCCCGTGGACCTGCTGGTGAACAACGCCGCTGTGCCCCGTGTCAGCCCTTCCTGGAGGTCACCAAGGAGGCC
TTTGACAGATCCTTTGAGGTGAACCTGCGTGCGGTTCATCCAGGTGTCGCAGATTGTGGCCAGGGGCTTAATAGCC
CGGGGAGTCCCAGGGGGCCATCGTGAATGTCTCCAGCCAGTGTCCCAGCGGGCAGTAACTAACCATAGCGTCTAC
TGCTCCACCAAGGGTGCCCTGGACATGCTGACCAAGGTGATGGCCCTAGAGCTCGGGCCCCACAAGATCCGAGTG
AATGCAGTAAACCCACAGTGGTGATGACGTCCATGGGCCAGGCCACCTGGAGTGACCCCCACAAGGCCAAGACT
ATGCTGAACCGAATCCCACCTTGGAAGTTTGCTGAGGTAGAGCACGTGGTGAACGCCATCCTCITTTCTGCTGAGT
GACCGAAGTGGCATGACCACGGGTTCCACTTTGCCGGTGAAGGGGGCTTCTGGGCCTGCTTGAGCTCCCTCCACA
CACCTCAAGCCCCATGCCGTGCTCATCCTACCCCCAATCCCTCCAATAAACCTGATTCTGCTGCCCCAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 5007

MELFLAGRRVLVTGAGKGIGRGTVQALHATGARVVAVSRTQADLDSLRECPGIEPVCVDLGDWEATERALGSVG
PVDLLVNNAVALLOPFLEVTKEAFDRSFEVNLRAVIQVSQIVARGLIARGVPGAIVNVSSQCSQRAVTNHSVYC
STKGALDMLTKVMALELGPHKIRVNAVNPVVMTSMGQATWSDPHKAKTMLNRIPLGKFAEVEHVVNAILFLLSD
RSGMTTGSTLPVEGGFWAC

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FIGURE 5008

TCTCTGAAGTTCAGAATCGATCGAAGTGGACGGCACGCCGCGGGTGGGTGCAAGATGCCGCTGCCGGTTC
AGGTGTTTAACTTGAGGGGGCCGTGGAGCCCATGCAGATCGACGTGGACCCCCAGGAAGACCCGCAGAATGCAC
CTGACGTCAACTACGTGGTGGAGAACCCAGCCTGGATCTGGAACAGTACGCGGCCAGCTACAGCGGCCTGATGC
GCATCGAACGGCTGCAGTTTATTGCTGATCACTGCCCCACGCTGCGGGTGGAGGCCCTGAAGATGGCCCTCTCCT
TCGTGCAGAGAACCTTTAACGTGGACATGTACGAGGAGATCCACCGCAAGCTCTCAGAGGCCACCAGGGAGCTGC
AGAACGCACCCGACGCCATCCCTGAGAGCGGCGTGGAGCCCCAGCCCTGGACACGGCCTGGGTGGAGGCCACGC
GGAAGAAGGCGCTGCTGAAGCTGGAGAAGCTGGACACAGACCTGAAGAACTACAAGGGCAACTCCATCAAAGAGA
GCATCCGGCGCGGCCACGACGACCTGGGCGACCACTACCTGGACTGTGGGGACCTCAGCAACGCCCTCAAGTGCT
ATTCCCGGGCCCGGGACTACTGCACCAGCGCCAAACACGTCAATCAATGTGCCTCAATGTCATCAAGGTCAGCG
TCTACTTGAGAATTGGTCTCATGTGCTCAGCTACGTACGCAAGGCTGAGTCCACCCAGAGATTGCCGAGCAGC
GAGGAGAGCGTGACAGCCAGACCCAGGCCATCCTCACCAAGCTCAAGTGTGCCGAGGCTTGGCAGAGCTGGCCG
CCAGGAAGTACAAGCAGGCTGCCAAGTGCTCCTGCTGGCTTCCTTTGATCACTGTGACTTCCCTGAGCTGCTGT
CCCCAGCAACGTGGCCATCTACGGTGGCCTGTGCGCCTTGGCTACCTTTGACCGGCAGGAGCTGCAGCGCAATG
TCATCTCCAGCAGCTCCTTCAAGTTGTTCTTGGAGCTGGAGCCACAGGTCCGAGACATCATCTTCAAATTCTACG
AGTCCAAGTACGCCTCATGTCTCAAGATGCTGGACGAGATGAAGGACAACCTGCTCCTGGACATGTATCTGGCCC
CCCATGTCAGGACCCTGTACACCCAGATTGCAACCGTGCCCTCATCCAGTATTTAGCCCCCTACGTGTCAGCCG
ACATGCATAGGATGGCGGCAGCCTTCAATACCACGGTGGCGGCCCTGGAGGACGAGCTGACGCAGCTAATCCTGG
AGGGGCTGATCAGTGCCCGTGTGGACTCACACAGCAAGATCCTATACGCCCCGGGACGTGGATCAGCGCAGACCA
CCTTTGAGAAGTCTCTGTTGATGGGCAAGGAGTTCCAGCGCCGCGCCAAGGCCATGATGCTGCGGGCAGCTGTGC
TCCGCAACCAGATCCATGTCAAGTCCCCGCCAGAGAAGGGAGCCAGGGGGAGCTGACTCCAGCCAACAGCCAGT
CCCGGATGAGCACCACATGTGAGGGGTGAACCTTGGCCTCCAGGACATCTGCACCCCTCCCCACCTCCACGGA
CCTCGGACCTCCAGGCGGCTCAGTGCTGCCTGCGGCCAGCTAAGGGGCCTGGCCACTGGGTGCCACCCAGCCTG
TGTGCCCTCCCTGGGGCTGAGGAGGCAGGCGGCTGCTAGTTGTGGCCCTTCTGGAAGGAGAGGCCTGCAGGGCT
CGACCCTGTGGGTTTCTGTCCCCAGGGAGCAGACTGTGCGGCACCCAGGCCAGTGGCACCATTTCCCAGACCC
TCCTGTTCCCGCCTCAGTCAGGTGCAGACAAGTGGGCGGTGTCCATTAAAGAGCAGACTCAGCGTT

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FIGURE 5009

MEVDGTPRRGGCKMPLPVQVFNLQGAVEPMQIDVDPQEDPQNAPDVNYVVENPSLDLEQYAASYSGLMRIERLQF
IADHCPTLRVEALKMALS FVQRTFNVD MYEEIHRKLSEATRELQNAPDAIPESGVEPPALDTAWVEATRKKALLK
LEKLD TDLK NYKGNSIKESIRRGHDDLGDHYLDCGDL SNALKCYSRARDYCTSAKHVINMCLNVIKVS VYLQ NWS
HVLSYVSKAESTPEIAEQRGERDSQTQAILTKLKCAAGLAELAARKYKQAAKCLLLASFDHCD FPELLSPSNVAI
YGGLCALATFDRQELQRNVISSSSFKLFLELEPQVRDIIFKFYESKYASCLKMLDEMKNLLLD MYLAPHVRTLY
TQIRNRALIQYFSPYVSADMRMAAAFNTTVA ALEDEL TQLILEGLISARVDSH SKILYARDVDQRSTTFEKSLL
MGKEFQRRAKAMMLRAAVLRNQIHVKSPPREGSQGELTPANSQSRMSTNM

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FIGURE 5010A

ACGGCAGCGGGCCCCGGCCTCCCTCTCCGCCGCGCTTCAGCCTCCCCGCTCCGCCGCGCTCCAGCCTCGCTCTCCGC
CGCCCCGACCGCCGCGCCGCGCCCTCACCAGAGCAGCCATGGAGGAGGTGGTGATTGCCGGCATGTCCGGGAAGCT
GCCAGAGTCGGAAGCTTGCAGGAGTTCTGGGACAACCTCATCGGCGGTGTGGACATGGTCACGGACGATGACCG
TCGCTGGAAGGCGGCTCTACGGCCTGCCCCGGCGGTCCGGCAAGCTGAAGGACCTGTCTAGGTTTGTATGCCTCCT
TCTTCGGAGTCCACCCCAAGCAGGCACACACGATGGACCTCAGCTGCGGCTGCTGCTGGAAGTCACCTATGAAG
CCATCGTGGACGGAGGCATCAACCCAGATTCACTCCGAGGAACACACACTGGCGTCTGGGTGGGCGTGAGCGGCT
CTGAGACCTCGGAGGCCCTGAGCCGAGACCCCGAGACACTCGTGGGCTACAGCATGGTGGGCTGCCAGCGAGCGA
TGATGGCCAACCGGCTCTCCTTCTTCTTCGACTTCAGAGGGCCAGCATCGCACTGGACACAGCCTGCTCCTCCA
GCCTGATGGCCCTGCAGAAGCCTACCAGGCCATCCACAGCGGGCAGTGCCCTGCCGCCATCGTGGGGGGCATCA
ATGTCCTGTGAAGCCCAACACCTCCGTGCAGTTCTTGAGGCTGGGGATGCTCAGCCCCGAGGGCACCTGCAAGG
CCTTCGACACAGCGGGGAATGGGTACTGCCGCTCGGAGGGTGTGGTGGCCGTCTGCTGACCAAGAAGTCCCTGG
CCCCGGGGGTGTACGCCACCATCCTGAACGCCGGCACCAATACAGATGGCTTCAAGGAGCAAGGCGTGACCTTCC
CCTCAGGGGATATCCAGGAGCAGCTCATCCGCTCGTTGTACCAGTCGGCCGGAGTGGCCCCCTGAGTCATTTGAAT
ACATCGAAGCCCACGGCACAGGCACCAAGGTGGGCGACCCCCAGGAGCTGAATGGCATCACCCGAGCCCTGTGCG
CCACCCGCCAGGAGCGCTGCTCATCGGCTCCACCAAGTCCAACATGGGGCACCCGGAGCCAGCCTCGGGGCTGG
CAGCCCTGGCCAAGGTGCTGCTGTCCCTGGAGCACGGGCTCTGGGCCCCAACCTGCACTTCCATAGCCCCAACCC
CTGAGATCCCAGCGCTGTTGGATGGGCGGCTGCAGGTGGTGGACCAGCCCCCTGCCCGTCCGTGGCGGCAACGTGG
GCATCAACTCCTTTGGCTTCGGGGGCTCCAACGTGCACATCATCTGAGGCCAACACGCAGCCGCCCCCGCAC
CCGCCCCACATGCCACCTGCCCGCTGCTGCTGCGGGCCAGCGACGCACCCCTGAGGCGGTGCAGAAGCTGCTGG
AGCAGGGCCTCCGGCACAGCCAGGACCTGGCTTTCCTGAGCATGCTGAACGACATCGCGGCTGTCCCCGCCACCG
CCATGCCCTTCCGTGGCTACGCTGTGCTGGGTGGTGAGCGGTTGGCCAGAGGTGCAGCAGGTGCCCGCTGGCG
AGCGCCGCTCTGGTTCACTGCTCTGGGATGGGCACACAGTGGCGCGGGATGGGGCTGAGCCTCATGCGCCTGG
ACCGCTTCCGAGATTCCATCCTACGCTCCGATGAGGCTGTGAAGCCATTTCGGCCTGAAGGTGTACAGCTGCTGC
TGAGCACAGACGAGAGCACCTTTGATGACATCGTCCATTCTGTTTGAGCCTGACTGCCATCCAGATAGGCCTCA
TAGACCTGCTGAGCTGCATGGGGCTGAGGCCAGATGGCATCGTCGGCCACTCCCTGGGGGAGGTGGCCTGTGGCT
ACGCCGACGGCTGCCTGTCCCAGGAGGAGCCGTCCTCGCTGCCTACTGAGGGGGACAGTGCATCAAAGAAGCCC
ATCTCCCGCCGGGCGCCATGGCAGCCGTGGGCTTGTCTGGGAGGAGTGTAAACAGCGCTGCCCCCGGGCGTGG
TGCCCGCCTGCCACAACCTCAAGGACACAGTACCATCTCGGGACCTCAGGCCCGGTGTTGAGTTCGTGGAGC
AGCTGAGGAAGGAGGTGTGTTTGCCAAGGAGGTGCGGACCGCGGTATGGCCTTCCACTCCTACTTCATGGAGG
CCATCGCACCCCCACTGCTGCAGGAGCTCAAGAAGGTGATCCGGGAGCCGAAGCCAGTTACAGCCGCTGGCTCA
GCACCTCTATCCCCGAGGCCAGTGGCACAGCAGCCTGGCACGCACGTCTCCGCCGAGTACAATGTCAACAACC
TGGTGAGCCCTGTGCTGTTCCAGGAGGCCCTGTGGCAGTGCCTGAGCACGCGGTGGTGTGAGATCGCGCCCC
ACGCCCTGCTCAGGCTGTCTTGAAGCGTGGCCTGAAGCCGAGTGCACCATCATCCCCCTGATGAAGAAGGATC
ACAGGGACAACCTGGAGTTCTTCTGGCCGGCATCGGAGGCTGCACCTCTCAGGCATCGACGCCAACCCCAATG
CCTTGTTCCACCTGTGGAGTTCCAGCTCCCCGAGGAACCTCCCTCATCTCCCCACTCATCAAGTGGGACCACA
GCCTGGCCTGGGACGTGCCGGCCGCCAGGACTTCCCCAACGGTTACAGTTCCCCCTCAGCCGCCATCTACAACA
TCGACACCAGCTCCGAGTCTCCTGACCACTACCTGGTGGACCACACCCTCGACGGTGCCTCTTCCCCGCCA
CTGGCTACCTGAGCATAGTGTGAAGACGCTGGCCCGCGCCCTGGGCCTGGGCGTCGAGCAGCTGCCTGTGGTGT
TTGAGGATGTGGTGTGCTGCACCAGGCCACCATCTGCCAAGACTGGGACAGTGTCCCTGGAGGTACGGCTCCTGG
AGGCCTCCCGTGCTTCGAGGTGTAGAGAACGGCAACCTGGTAGTGAGTGGGAAGGTGTACAGTGGGATGACC
CTGACCCCAGGCTCTTCGACCACCCGAAAGCCCCACCCCCAACCCACAGGAGCCCCCTCTTCTGGCCAGGCTG
AAGTTTACAAGGAGCTGCGTCTGCGTGGCTACGACTACGGCCCTCATTTCCAGGGCATCCTGGAGGCCAGCCTGG
AAGGTGACTCGGGGAGGCTGTGTGGAAGGATAACTGGGTGAGCTTCATGGACACCATGCTGCAGATGTCCATCC
TGGGCTCGGCCAAGCACGGCCTGTACCTGCCACCCGTGTACCCGCCATCCACATCGACCTGCCACCCACAGGC
AGAAGCTGTACACACTGCAGGACAAGGCCCAAGTGCTGACGTGGTGGTGGAGGAGGTGGCTGAGGGTACAGTGG
CCGGAGGCGTCCACATCTCCGGGCTCCACACTGAGTCGGCCCCGCGGCGGCAGCAGGAGCAGCAGGTGCCATCC
TGGAGAAGTTTGTCTTCACTCCCCACACGGAGGAGGGGTGCTGTCTGAGCGCGCTGCCCTGCAGGAGGAGCTGC
AACTGTGAAGGGGCTGGTGCAGGCACTGCAGACCAAGGTGACCCAGCAGGGGCTGAAGATGGTGGTGGCCGGAC

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FIGURE 5010B

TGGATGGGGCCCAGATCCCCCGGGACCCCTCACAGCAGGAAGTGGCCCGGCTGTTGTGCGCTGCCTGCAGGCTTC
AGCTCAACGGGAACCTGCAGCTGGAGCTGGCGCAGGTGCTGGCCCAGGAGAGGCCCAAGCTGCCAGAGGACCCTC
TGCTCAGCGGCCTCCTGGACTCCCCGGCACTCAAGGCCTGCCTGGACACTGCCGTGGAGAACATGCCAGCCTGA
AGATGAAGGTGGTGGAGGTGCTGGCTGGCCACGGTCACTGTATTCCCGCATCCCAGGCCTGCTCAGCCCCCATC
CCCTGCTGCAGCTGAGCTACACGGCCACCGACCGCACCCCCAGGCCCTGGAGGCTGCCAGGCCGAGCTGCAGC
AGCACGACGTTGCCAGGGCCAGTGGGATCCCGCAGACCCTGCCCCAGCGCCCTGGGCAGCGCCGACCTCCTGG
TGTGCAACTGTGCTGTGGCTGCCCTCGGGGACCCGGCCTCAGCTCTCAGCAACATGGTGGCTGCCCTGAGAGAAG
GGGGCTTTCTGCTCCTGCACACACTGCTCCGGGGGACCCCCCTCGGGGACATCGTGGCCTTCTCACCTCCACTG
AGCCGCAGTATGGCCAGGGCATCCTGAGCCAGGACGCGTGGGAGAGCCTCTTCTCCAGGGTGTGCTGCGCCTGG
TGGGCCTGAAGAAGTCTTCTACGGCTCCACGCTCTTCTGTGCCCGCGGCCACCCCGCAGGACAGCCCCATCT
TCCTGCCGGTGGACGATACCAGCTTCCGCTGGGTGGAGTCTCTGAAGGGCATCCTGGCTGACGAAGACTCTTCCC
GGCCTGTGTGGCTGAAGGCCATCAACTGTGCCACCTCGGGCGTGGTGGGCTTGGTGAAGTGTCTCCGCCGAGAGC
CCGGCGGGAACCGCCTCCGGTGTGTGCTGCTCTCCAACTCAGCAGCACCTCCACGTCCCGGAGGTGGACCCGG
GCTCCGCAGAACTGCAGAAGGTGTTGCAGGGAGACCTGGTGATGAACGTCTACCGCGACGGGGCCTGGGGGGCTT
TCCGCCACTTCTGCTGGAGGAGGACAAGCCTGAGGAGCCGACGGCACATGCCTTTGTGAGCACCTCACC CGG
GGGACCTGTCTCCATCCGCTGGGTCTGCTCCTCGTGCGCCATGCCCAGCCCACCTGCCCTGGCGCCAGCTCT
GCACGGTCTACTACGCCTCCCTCAACTTCCGCGACATCATGCTGGCCACTGGCAAGCTGTCCCCTGATGCCATCC
CAGGGAAGTGGACCTCCCAGGACAGCCTGCTAGGTATGGAGTTCTCGGGCCGAGACGCCAGCGGCAAGCGTGTGA
TGGGACTGGTGCCTGCCAAGGGCCTGGCCACCTCTGTCTGCTGTACCGGACTTCTCTGGGATGTGCCTTCCA
ACTGGACGCTGGAGGAGGCGGCCTCGGTGCCGTGCTGCTACAGCACGGCCTACTACGCGCTGGTGGTGGCTGGGC
GGGTGCGCCCCGGGGAGACGCTGCTCATCCACTCGGGCTCGGGCGGCGTGGGCCAGGCCGCCATCGCCATCGCCC
TCAGTCTGGGCTGCCGCGTCTTACCACCGTGGGGTCCGCTGAGAAGCGGGCGTACCTCCAGGCCAGGTTCCCCC
AGCTCGACAGCACCAGCTTCGCCAACTCCCGGGACACATCCTTCGAGCAGCATGTGCTGTGGCACACGGGCGGGA
AGGGCGTTGACCTGGTCTTGAACCTCTTGGCGGAAGAGAAGCTGCAGGCCAGCGTGAGGTGCTTGGCTACGCACG
GTCGCTTCTTGGAAATTGGCAAATTGACCTTTCTCAGAACCACCCGCTCGGCATGGCTATCTTCTGAAGAACG
TGACATTCCACGGGGTCTACTGGATGCGTTCTTCAACGAGAGCAGTGCTGACTGGCGGGAGGTGTGGGCGCTTG
TGCAGGCCGGCATCCGGGATGGGGTGGTACGGCCCTCAAGTGCACGGTGTTCATGGGGCCCAGGTGGAGGACG
CCTTCCGCTACATGGCCCAAGGGAAGCACATTGGCAAAGTCGTCGTGCAGGTGCTTGCAGGAGGCCGAGGCAG
TGCTGAAGGGGGCCAAACCAAGCTGATGTGCGCCATCTCCAAGACCTTCTGCCCGGCCACAAGAGCTACATCA
TCGCTGGTGGTCTGGGTGGCTTCGGCTGGAGTTGGCGCAGTGCTGATACAGCGTGGGGTGCAGAAGCTCGTGT
TGACTTCTCGCTCCGGGATCCGACAGGCTACCAGGCCAAGCAGGTCCGCCGCTGGAGGCGCCAGGGCGTACAGG
TGCAGGTGTCCACAGCAACATCAGCTCACTGGAGGGGGCCCGGGGCTCATTGCCGAGGCGGCGCAGCTTGGGC
CCGTGGGCGGCGTCTTCAACCTGGCCGTGGTCTTGAGAGATGGCTTGCTGGAGAACCAGACCCAGAGTTCTTCC
AGGACGTCTGCAAGCCCAAGTACAGCGGCACCCTGAACCTGGACAGGGTGACCCGAGAGGCGTGCCCTGAGCTGG
ACTACTTTGTGGTCTTCTCCTCTGTGAGCTGCGGGCGTGGCAATGCGGGACAGAGCAACTACGGCTTTGCCAATT
CCGCCATGGAGCGTATCTGTGAGAAACGCCGGCACGAAGGCCCTCCAGGCCCTGGCCGTGCAGTGGGGCGCCATCG
GCGACGTGGGCATTTTGGTGGAGACGATGAGCACCAACGACACGATCGTCAGTGGCACGCTGCCCCAGCGCATGG
CGTCTGCCTGGAGGTGCTGGACCTTCTCTGAACCAGCCCCACATGGTCTGAGCAGCTTTGTGCTGGCTGAGA
AGGCTGCGGCCTATAGGGACAGGGACAGCCAGCGGGACCTGGTGGAGGCCGTGGCACACATCCTGGGCATCCGCG
ACTTGGCTGCTGTCAACCTGGACAGCTCACTGGCGGACCTGGGCCTGGACTCGCTCATGAGCGTGGAGGTGCGCC
AGACGCTGGAGCGTGAGCTCAACCTGGTGTGTCCGTGCGCGAGGTGCGGCAACTCACGCTCCGGAAACTGCAGG
AGCTGTCTCAAAGGCGGATGAGGCCAGCGAGCTGGCATGCCCCACGCCCAAGGAGGATGGTCTGGCCCAGCAGC
AGACTCAGCTGAACCTGCGCTCCCTGCTGGTGAACCCGAGGGCCCCACCTGATGCGGCTCAACTCCGTGCAGA
GCTCGGAGCGGCCCTGTTCTTGGTGCACCCAATCGAGGGCTCCACCACCGTGTTCACAGCCTGGCCTCCCGGC
TCAGCATCCCCACCTATGGCCTGCAGTGCACCCGAGCTGCGCCCCCTTGACAGCATCCACAGCCTGGCTGCTACT
ACATCGACTGCATCAGGCAGGTGCAGCCCGAGGGCCCCCTACCGCGTGGCCGGCTACTCTACGGGGCCTGCGTGG
CCTTTGAAATGTGCTCCCAGCTGCAGGCCAGCAGAGCCAGCCCCACCCACAACAGCCTCTTCTGTTGACG
GCTCGCCACCTACGTACTGGCCTACACCCAGAGCTACCGGGCAAAGCTGACCCAGGCTGTGAGGCTGAGGCTG

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FIGURE 5010C

AGACGGAGGCCATATGCTTCTTCGTGCAGCAGTTACGGACATGGAGCACAACAGGGTGCTGGAGGCGCTGCTGC
CGCTGAAGGGCCTAGAGGAGCGTGTGGCAGCCGCCGTGGACCTGATCATCAAGAGCCACCAGGGCCTGGACCGCC
AGGAGCTGAGCTTTGCGGCCCGGTCCCTTCTACTACAAGCTGCGTGCCGCTGAGCAGTACACACCCAAGGCCAAGT
ACCATGGCAACGTGATGCTACTGCGCGCCAAGACGGGTGGCGCCTACGGCGAGGACCTGGGCGCGGACTACAACC
TCTCCCAGGTATGCGACGGGAAAGTATCCGTCCACGTATCGAGGGTGACCACCGCACGCTGCTGGAGGGCAGCG
GCCTGGAGTCCATCATCAGCATCATCCACAGCTCCCTGGCTGAGCCACGCGTGAGCGTGCGGGAGGGCTAGGCCC
GTGCCCCCGCCTGCCACCGGAGGTCACTCCACCATCCCCACCCACCCACCCACCCCGCCATGCAACGGGAT
TGAAGGGTCCGTGCCGGTGGGACCCCTGTCCGGCCAGTGCCACTGCCCCCGAGGCTGCTAGATGTAGGTGTTAGG
CATGTCCCACCCACCCGCCGCTCCACGGCACCTCGGGGACACCAGAGCTGCCGACTTGAGAGACTCCTGGTCTG
TGAAGAGCCGGTGGTGCCCGTGCCCGCAGGAACTGGGCTGGGCCTCGTGCGCCCGTGGGGTCTGCGCTTGGTCTT
TCTGTGCTTGGAATTTGCATATTTATTGCATTGCTGGTAGAGACCCCCAGGCCTGTCCACCCTGCCAAGACTCCTC
AGGCAGCGTGTGGGTCCCGCACTCTGCCCCATTTCCCCGATGTCCCCCTGCGGGCGCGGGCAGCCACCCAAGCCT
GCTGGCTGCGGCCCCCTCTCGGCCAGGCATTGGCTCAGCCCCTGAGTGGGGGGTCTGTTGGGCCAGTCCCCGAGGA
GCTGGGCCCCCTGCACAGGCACACAGGGCCCCGGCCACACCCAGCGGGCCCCCGCACAGCCACCCGTGGGGTGCTGC
CCTTATGCCCGGCGCCGGGCACCAACTCCATGTTTGGTGTGTGTCTGTGTTTGTGTTTTTCAAGAAATGATTCAAAT
TGCTGCTTGGATTTTGAATTTACTGTAAGTGTACAGTCTGGACCCCGTTTCATTTTTACACCAATTT
GGTAAAAATGCTGCTCTCAGCCTCCCACAATTAAACCGCATGTGATCTCC

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FIGURE 5011

CAGGGAGTGCCTGCAGCACCCCGGGCGGGGCCACCCAGTCTGCGTGTACACGAGGGATGAGGTGACGGGTGAAGC
TGCCCTGCGGGGCACGACGCTGCAGTCGCTGGGCCTGACCGGGGCGAGCGCCACCATCAGGTTTGTCATGAAGTG
CTACGACCCCGTGGGCAAGACCCAGGAAGCCTGGGCTCGTCAGCGTCGGCTGGCCAGGCAGCCGCCAGCGCTCC
ACTTCCCTTGGAATCTGGGGAGCTCAGCCGCGGCGACTTGAGCCGTCCGGAGGACGCGGACACCTCAGGGCCCTG
CTGCGAGCACACTCAGGAGAAGCAGAGCACAAGGGCACCCGCAGCTGCCCCCTTTGTTCTTTCTCGGGTGGGGG
ACAGAGACTGGGGGGCCCTCCTGGGCCACGAGGCCTCTGACATCATCTTCAGCTAAGTTGCCGAAGTCCCTCTC
CAGCCCTGGAGGCCCTCCAAGCCAAAGAAGTCCAAGTCGGGCCAGGATCCCCAGCAGGAGCAGGAGCAGGAGCG
GGAGCGGGATCCCCAGCAGGAGCAGGAGCGGGAGCGGCCGTGGACCGGGAGCCCGTGGACCGGGAGCCGGTGGT
GTGCCACCCCGACCTGGAGGAGCGGCTGCAGGCCTGGCCAGCGGAGCTGCCTGATGAGTTCTTTGAGCTGACGGT
GGACGACGTGAGAAGACGCTTGGCCCAGCTCAAGAGTGAGCGGAAGCGCCTGGAAGAAGCCCCCTTGGTGACCAA
GGCCTTCAGGGAGGCGCAGATAAAGSAGAAGCTGGAGCGCTACCCAAAGGTGGCTCTGAGGGTCTGTTCCTCGA
CCGCTACGTCTTACAGGGCTTCTTCCGCCCCAGCGAGACAGGTGGGGGACTTGCGAGACTTCGTGAGGAGCCACC
TGGGGAACCCCGAGCTGTCAATTTACCTGTTTCATACCCCTCCAAAAACAGTCCTGGACGACCACACGCAGACCC
TCTTTCAGGCGAACCTCTTCCCGGCCGCTCTGGTGCCTTGGGAGCCGAAGAGCCGGCAGGTGTCTACCTGGAGC
CTGGCCTGCTGGAGCATGCCATCTCCCCATCTGCGGCCGATGTGCTGGTGGCCAGGTACATGTCCAGGGCCGCGG
GGTCCCCCTTCCCCATTGCCAGCCCCTGACCCTGCACCTAAGTCTGAGCCAGCTGCTGAGGAGGGGGCGCTGGTCC
CCCCTGAGCCCATCCCAGGGACGGCCAGCCCGTGAAGAGGAGCCTGGGCAAGGTGCCCAAGTGGCTGAAGCTGC
CGGCCAGCAAGAGGTGAGAGCTGCCAGCCTGAGGTGCCCCACTCCGCCAGCCACAGGACCACCTCCTCTGCCAGCA
GGAATAAAGACTTGTGCATCCCTC

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FIGURE 5012

MKCYDPVGKTPGSLGSSASAGQAAASAPLPLESGELSRGDLSPEDADTSGPCCEHTQEKQSTRAPAAAPFVPFS
GGGQRLGGPPGPTRPLTSSSAKLPKSLSSPGGPKPKKSKSGQDPQQEQEQERERDPQQEQERERPVDPREVDRE
PVVCHPDLEERLQAWPAELPDEFFELTVDDVRRRLAQLKSERKRLEEAPLVTKAFREAQIKEKLERYPKVALRVL
FPDRYVLQGFFRPSETGGGLARLREPPGEPRVILPVHHPKNSPGRPHADPLSGEPLPGRSGALGSRRAGRCL
PGAWPAGACHLPICGRCAGGQVHVQGRRVPFPIASP

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FIGURE 5013

GACCCCTCCTCCTGTAGAGAGTGGTGCTGCCCTCTCGGGATGTACCTGCAGGTGGAGACCCGCACCACTCCCGC
CTCCATCTGAAGAGGGCTCCAGGCATCCGGTCCCTGGTCCCTGCTGGTTGGAATCTTGTCGATTGGCCTGGCTGCT
GCCTACTACAGCGGAGATAGCCTGGGCTGGAAGCTCTTCTACGTCACAGGCTGCCTGTTTGTGGCTGTGCAGAAC
TTGGAGGACTGGGAGGAAGCCATCTTCGACAAGAGCACAGGGAAGGTTGTTTTGAAGACGTTACGCTCTACAAG
AAGCTGCTGACTCTTTTTCAGAGCTGGCCACGACCAGGTGGTGGTCCCTGCTCCATGATGTCCGTGATGTGAGCGTG
GAGGAGGAGAAGGTCCGGTACTTCGGGAAAGGCTACATGGTGGTGTCCGGCTTGCACGGGCTTCTCCACCCCC
CTCACGCAGAGTGCAGTCATGGGCCACCGCAGTGATGTGGAAGCATCGCCAAGCTCATCACCAGCTTCTTGGAGC
TGCACTGCCTTGAGAGCCCCACAGAGCTGTCTCAGAGCAGCGACAGTGAGGCCGGTGACCCCTGCAAGCCAGAGCT
GACAGCCCCACTGTGCCTGAGCCCGTGCACCGCCACAGGACCCATGGCACATTCCCGGTGTGCCTGAGCCCGTG
CACCGCCACAGGACCCGTGGCACATTCCCGGTGTGCCTGAGCCCGTGACCGCCACAGGACCCGTGGCACATT
CCCGGTGTGCCTGAGCCCGTGCACCGCCACAGGACCCGTGGCACATTCCCGGTGTGCCTGAGCCCGTGACCGC
CCACAGGACCCGTGGCCTTGGCTTCAGTTGGTGCCTCCAGCCGAGTTGGCTATTGCCTGCTCATGCTGCTGCTT
GCACACTGCATGAAACAGCAGGCCAGACCAGGACATCCAGACTTTCTCCATCGTGAGGCCTGGGCCTGCCTTTCT
GCAGCCGGAGGTCTCGCCAGCCCTGGACTCCTGCTTTGGGCCACAGCAAGACCTCGGGCGAGTGAGAGGGCGGGG
CCAGGCCGGGCCCTTGTGGGTGCTGATGCTGCATGTTGTCCCGACACAGCGTCCCTCTCCCTGGTGGACATCCCC
AGCGGTGAGGTGCTTCCCCAAGGGCAGTGAGGGGTGAACATCCAGGGCCTACCTGGCTGTGCACGCTGCAGCCAC
ACTGTGGAAGCTGCCCCCTCCCGAGGACCCGCTCCCTTGCTGATGCCAGGATCTCAGCGCATAGACCACTCTGC
CCCAGCGGTGCTCACAGAAAGGTCTCTCTGTTCCCTCACACTCAGCTTCAGCATAAGCTGTGAGGCCAGAAAAAAG
GTCAGCTCTTCTAGTATCGTGCAGTGCTTAAAAACCGGGAGCTCCAGCCGGGCGCAGTGGGTTTCATGCCAGTAATC
CCAGCACTTTTCGGAGGCCGAGGTGGGAGGATTGCTTGAGGCCAGGAGTTCAAGACCAGCCTGGGCAACACAGCAA
GATCCTGTCTTTGTAAAAAACTAACCAAACAGGAAAACTGGGAGATTTTCTGCAGAAATTGAGTTCCAGCCTC
TCTCGAACCTGGGAAGACCTGGCAGGAGGGGGCTGGGCTCTCGGCTACAGACTTCTCCCCACCCCGTAGGAGCTG
AACGCCAACCATCCTGACCCGCCAGTGCTCTTGGTCTCCTGAGTGTACCCAGGTCTCCAGGTGCGGTGTGCAC
CGAGCGCGCTGGCCTGATGCCCTGGCCTGTGAGCTGGGGACTCCTGGGCCCTGTGAGCCCTAGGCGCAGGCCC
AGGAATGGCTGGGTAGGACAGGGAACACCTTTGCCCCACGTCTGGCTGTGACCTCGGTGAAAGCCGACAGGAGAG
AGATGGACCCCTCCTCCTCAGTAGTGGCTGCCAGTCCCTCGTTGCAGGACAGGGTCATCATAACCATAAATAACCC
TTCACGTGTC

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FIGURE 5014

GCGTCGGGGGAGGACAACAAAGGGCCGCGGGCGGGCGGGCAGTGGTGTCCCAGTCTCCCGGTGCTTCCCTGAGGCT
GAGGCGCCCGGCCTCCCGCCCGCCGCGCTCCAGATGAAGTGTGAGCACTGCACGCGCAAGGAATGTAGTAAGAAA
ACAAAACTGATGACCAAGAGAATGTGTGAGCCGATGCACCGAGTCCAGCCCAGGAAAATGGAGAGAAGGGAGAA
TTCCACAAGTTGGCTGATGCCAAGATATTTTTGAGCGACTGCCTGGCATGTGACAGCTGTATGACTGCAGAGGAA
GGAGTCCAACCTTTCCCAGCAAAATGCCAAGGACTTCTTCCGCGTTCTGAACCTTAACAAGAAATGTGATACCTCA
AAGCACAAAGTGCTGGTAGTGTCTGTGTGTCCTCAATCTTTGCCTTATTTTGCTGCTAAATTCAACCTCAGTGTA
ACTGATGCATCCAGAAGACTCTGTGGTTTCCTCAAAAGTCTTGGGGTGCCTATGTATTTGATACGACGATAGCT
GCGGATTTTAGTATCCTGGAGAGTCAAAAAGAAATTCGTGCGTTCGCTATCGCCAGCACAGTGAGGAGGAACGCACC
CTGCCCATGCTGACCTCTGCCTGTCTGGCTGGGTCCGATACGCCAGCGGGTGTGGGTGCGCCCATCACTGCC
CACCTCTGCACCGCCAAGTCCCCCAGCAGGTCAATGGGCTCTTTGGTGAAGGATTATTTGCGCCAGACAGCAGAAC
CTGTCTCCAGAGAAGATTTTCCACGTCAATTGTGGCCCCCTTGTATGACAAGAAGCTGGAGGCTCTTCAGGAAAGC
CTTCCCCCTGCTTTGCATGGCTCCCGGGGCGCTGACTGCGTGTAAACATCAGAAATTAGCCAGGCGTGGTGGTGC
ACACCTGTGATCACAGCTACTCGGGAGGCTGCGGCAAGAGAATCACTTGAACCCGGGAGGCAGAGGTTACAGCGA
GACAAGATTGCACCACTGGACTCCAGCCTGGGCGGGCGGAGGTGAAATTGCTCAAATAATGGAGCAAGGTGACCTC
TCAGTGAGAGATGCTGCCGTCGACACTCTGTTTGGAGACTTGAAGGAGGACAAAGTGACGCGTCATGATGGAGCC
AGCTCAGACGGGCACCTGGCACACATCTTCAGACATGCGGCCAAGGAGCTGTTCAACGAGGATGTGGAGGAGGTC
ACTTACCGAGCCCTGAGAAACAAAGACTTCCAAGAGGTCAACCTTGAGAAGAACGGAGAGGTGGTGTACGCTTT
GCTGCAGCCTATGGCTTTGAAACATCCAGAACATGATCCTGAAGCTTAAGAAGGGCAAGTTCCCATTCCACTTT
GTGGAGGTCTCGCCTGTGCTGGAGGATGCTTAAATGGCAGAGGCCAAGCCCAGACTCCAGACGGACATGCGGAT
AAGGCCCTGCTGCGGCAGATGGAAGGCATTTACGCTGACATCCCTGTGCGGCGTCCGGAGTCCAGTGCACACGTG
CAGGAGCTGTACCAGGAGTGGCTGGAGGGGATCAACTCCCCAAGGCCCGAGAGGTGCTGCATACCACGTACCAG
AGCCAGGAGCGTGGCACACACAGCCTGGACATCAAGTGGTGAAGTCAGGCCAGGGCCTTCCAGCTGCTCTTGGG
CCAGAGCCAAGAGCCTCTCAGTAGAGGGAGGGGCTGCCCTGAGTGGAGTATTAAAGACACTTAAGAAAACCGCTC
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5015

MKCEHCTRKECSKKTCTDDQENV SADAPSPAQENG EKGEFHKLADAKIFLSDCLACDSCMTAE EGVQLSQQNAKD
FFRVLNLNKKCDT SKHKVLVVSVCPSLPYFAAKFNLSVTDASRR LCGFLKSLGVHYVFDTTIAADF SILESQKE
FVRRYRQHSEEERTLPMLTSACPGWVRYAERVLGRPITAH LCTAKSPQQVMGSLVKDYFARQQNLSPEKIFHVIV
APCYDKKLEALQESLPPALHGSRGADCVL TSEISQAWWCTPVITATREAAA RESLEPGRQLQ RDKIAPLDSSLG
GGGEIAQIMEQGDL\$VRDAAVDTLFGDLKEDKVTRHDGASSDGH LAHIFRHA AKELFNEDVEEV TYRALRNKDFQ
EVTLEKNGEVVLRF AAAYGFRNIQNMILKLKKGKFPFHFVEVLACAGGC LNGRGQAQTPDGHADKALLRQMEGIY
ADIPVRRPES SAHVQELYQEWLEGINSPKAREVLHTTYQSQERGTHSLDIKW

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FIGURE 5016

CGTCAAGCTTGGCACGAGGCCATGGAGCAGCTGCTGCGCGCCGAGCTGCGCACCCGCGACCCCTGCGGGCCTTCGGC
GGCCCCGGCGCCGGCTGCATCAGCGAGGGCCGAGCCTACGACACGGACGCAGGCCCAGTGTTTCGTCAAAGTCAAC
CGCAGGACGCAGGCCCCGGCAGATGTTTGAGGGGGAGGTGGCCAGCCTGGAGGCCCTCCGGAGCACGGGCCTGGTG
CGGGTGCCGAGGCCCATGAAGGTCATCGACCTGCCGGGAGGTGGGGCCGCCTTTGTGATGGAGCATTGAAGATG
AAGAGCTTGAGCAGTCAAGCATCAAACTTGGAGAGCAGATGGCAGATTTGCATCTTTACAACCAGAAGCTCAGG
GAGAAGTTGAAGGAGGAGGAGAACACAGTGGGCCGAAGAGGTGAGGGTGCTGAGCCTCAGTATGTGGACAAGTTC
GGCTTCCACACGGTGACGTGCTGCGGCTTCATCCCGCAGGTGAATGAGTGGCAGGATGACTGGCCGACCTTTTTTC
GCCCCGCACCGGCTCCAGGCGCAGCTGGACCTCATTGAGAAGGACTATGCTGACCGAGAGGCACGAGAACTCTGG
TCCCGGCTACAGGTGAAGATCCCGGATCTGTTTTGTGGCCTAGAGATTGTCCCCGCGTTGCTCCACGGGGATCTC
TGGTCGGGAAACGTGGCTGAGGACGACGTGGGGCCCATTTATTTACGACCCGGCTTCCTTCTATGGCCATTCCGAG
TTTGAAGTGGCAATCGCCTTGATGTTTGGGGGGTTCCCCAGATCCTTCTTCACCGCCTACCAACCGGAAGATCCCC
AAGGCTCCGGGCTTCGACCAGCGGCTGCTGCTCTACCAGCTGTTTAACTACCTGAACCACTGGAACCACTTCGGG
CGGGAGTACAGGAGCCCTTCCTTGGGCACCATGCGAAGGCTGCTCAAGTAGCGGGCCCTGCCCTCCCTTCCCCCTG
TCCCCGTCCCCGT

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FIGURE 5017

MEQLLRAELRTATLRAFGGPGAGCISEGRAYD TDAGPVFVKVNRRTQARQMFEGEVASLEALRSTGLVRVPRPMK
VIDLPGGGAAFVMEHLKMKSLSSQASKLGEQMADLHLYNQKLREKLKEEENTVGRRGEGAEPQYVDKFGFHTVTC
CGFIPQVNEWQDDWPTFFARHRLQAQLDLIEKDYADREARELWSRLQVKIPDLFCGLEIVPALLHGDWLSGNVAE
DDVGPIIYDPASFYGHSEFELAIALMFGGFPRSFFTAYHRKIPKAPGFDQRLLLYQLFNYLNHWNHFGREYRSPS
LGTMRRLK

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FIGURE 5018

GACACTATCCGTGCGGCCAGGCGGAGACCCGGAGGACCGAAGCTTCCGGACGACGAGGAACCGCCCAACATGGCC
TCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGTTCAACGCGTCC
ATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCAGGGGCTGGAGAAGGCA
GGGCTCCTCACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTGGCTGAGGAGTGGGCCAGGGC
ACTTTCAAACCTGAACTCCAATGATGAGGACATCCACACAGCCAATGAGCGCCGCTGAAGGAGCTCATTGGTGCA
ACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGTGGTCACAGACCTCAGGCTGTGGATGCGGCAG
ACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATTAGGACCATGGTGGATCGGGCAGAGGCGAACGTGATG
TTCTCTTCCCGGGGTACACCCATTTCAGAGGGGCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCCG
TGGCACTGACCCGAGACTCTGAGCGGCTGCTGGAGGTGCGGAAGCGGATCAATGTCTCTGCCCTGGGGAGGTGGG
GCCATTGCAGGCAATCCCCCTGGGTGTGGACCGAGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCTC
AACAGCATGGATGCCACTAGTGAGCGGGACTTTGTGGCCGAGTTCTGTCTGGGCTTCGCTGTGCATGACCCAT
CTCAGCAGGATGGCCGAGGACCTCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTAC
AGCACGGGAAGCAGCCTGATGCCCCAGAAGAAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGT
GTGTTTGGGCGGTGTGCCGGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGAG
GACAAGGAAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATCTCTACG
CTGCAGATTACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCTATTACCTG
GTCCGCAAAGGGATGCCATTCCGCCAGGCCCCAGAGGCTCCGGGAAAGCTGTGTTTATGGCCGAGACCAAGGGG
GTCGCCCTCAACCAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTCTCGGGCGACGTGATCTGCGTG
TGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCCAGCGTCGACTGGCAGATC
CGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCTAGGTCTCTCCACACCTGCCCCCTAATAAAGTGGGCGCG
AG

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FIGURE 5019

GCGGACCCAGAGAGCCCTGAGCAGCCCCGCCGTGCCGGCCTAGTTACCGTCATACCACGGGAGGAGCCGCAGC
TGCCGCAGCCGGCCCCAGTCTCCATCACC GCAACCAATGAGCAGCAAGGCCGAGACCCAGCAGCCACCCGCCGCC
CCCGCCTTTCCCCCACC GCCCCCCCTCCCGTCCCCCGCCGCCCGCCCTCAGCGCCGCCGACACCAAGCCCGG
CACTACGGGCAGCTGCGCAGGGAGCGGTGGTCCGGCGGCCCTCACATCGGCGGCGCCTGCCAGCGTGGACAAGAA
GGTCATCGCAGTGAAGGTTTTGGGAACAGTAAATGGTTCAATGTAAGGAACGGATATGGTTTCATCAACAGGAA
TGACACCAAGGAAGATGTATTTGTACACCAGACTGCCATAAAGAATAACCCAGGAAGTACCTTCGCAGTGTAGG
AGATGAAGAGACTGTGGAGTTTGATGTTGTTGAAGGAGAAGAGGGTGCGGAGGCAGCAAATGTTACAGATCCTGG
TGGTGTTCCAGTTCAAGGCAGTAAATATGCAGCAGATCGTAACCATTATAGACGCTATCCACGTCATAGGGGTCC
TCCACGCAATTACCAGCAAAATTACCAGAACAGTGAGAGTGGGGAAAAGACCGAGGGATCGGAGAATGCTCCCGA
AGGCCAGGCCCAACAATGCCGGCCCTACCGCAGGCAAAAGGTTCCACCTTACTACATGTGGAGACCCTGTGGGTG
TCGACCACAGTATTCAGCCCTCCTGTGCAGGGAGAAGTGATGGAGGGTGCTGACAACCAGGGTGCGAGGAGAACA
AGGTAGACCAGTGAGGCAGAATATGTATCGGGGATATAGACCACGATTCCCGCAGGGGCCCTCCTTGCCAAAGACA
GCCTAGAGAGTACGGCAATGAAGAAGATAAAATCAAGGAGATGAGACCCAGGGTCAGCAGCCACCTCAACGTCGG
TACCGCAGCAACTTCAATTACCAACGCAGATGCCCAGAAAACCTAAATCACAAGATGGCAAAGAGACAAAATCA
GCCAATCCACCAGCTGAGAATTCGTCTGCTCCCGAGGCTGAGCAGGGCGGGGCTGAGTAAATGCCGGCTTACCAT
CTCTACCATCATCCGGTTTAGTCATCCAACAAGAAGAAATATGAAATTCAGCAATAAGAAATGAACAAAAGATT
GGAGCTGAAGACCTTAAGTGCTTGCTTTTTGCCCGTTGACCAGATAAATAGAACTATCTGCATTATCTATGCAGC
ATGGGGTTTTTATTATTTTACCTAAATATGTCTCTTTTTGGTAATAACAAACGTGTTTTTTTTTAAAAGCCTTG
TTTTCTCAATACGCCTTTAAAGGTTTTTAAATTGTTTCATATCTGGTCAAGATGAGATTTTTTAAGCACTTTATT
TTTAATTTGTAATAAAAGTTTACAACCTGATTTTTTCAAAAAAGTCAACAACTGCAAGCACCTGTTAATAAAGG
TCTTAAATAATAATAATAAAAA

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FIGURE 5020

CCGCGCCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTTCGCCTGCCTCCGTCCCCCGCCCGCGGCCATGCCT
GTGGCCGGCTCGGAGCTGCCGCGCCGGCCCTTGCCCCCGCCGCACAGGAGCGGGACGCCGAGCCGCGTCCGCCG
CACGGGGAGCTGCAGTACCTGGGGCAGATCCAACACATCCTCCGTGCGGCGTCAGGAAGGACGACCGCACGGGC
ACCGGCACCCTGTCGGTATTTCGGCATGCAGGCGCGCTACAGCCTGAGAGATGAATTCCTCTGCTGACAACCAAA
CGTGTGTTCTGGAAGGGTGTTTTGGAGGAGTTGCTGTGGTTTATCAAGGGATCCACAAATGCTAAAGAGCTGTCT
TCCAAGGGAGTGAAAATCTGGGATGCCAATGGATCCCGAGACTTTTGGACAGCCTGGGATTCTCCACCAGAGAA
GAAGGGGACTTGGGCCCAGTTTATGGCTTCCAGTGGAGGCATTTTGGGGCAGAATACAGAGATATGGAATCAGAT
TATTCAGGACAGGGAGTTGACCAACTGCAAAGAGTGATTGACACCATCAAACCAACCCTGACGACAGAAGAATC
ATCATGTGCGCTTGGAATCCAAGAGATCTTCCTCTGATGGCGCTGCCTCCATGCCATGCCCTCTGCCAGTTCTAT
GTGGTGAACAGTGAGCTGTCTGCCAGCTGTACCAGAGATCGGGAGACATGGGCCTCGGTGTGCCTTTCAACATC
GCCAGCTACGCCCTGCTCACGTACATGATTGCGCACATCACGGGCCTGAAGCCAGGTGACTTTATACACACTTTG
GGAGATGCACATATTTACCTGAATCACATCGAGCCACTGAAAATTCAGCTTCAGCGAGAACCCAGACCTTTCCCA
AAGCTCAGGATTCTTCGAAAAGTTGAGAAAATTGATGACTTCAAAGCTGAAGACTTTTCAGATTGAAGGGTACAAT
CCGCATCCAACATATTAATAATGAAAATGGCTGTTTAGGGTGCTTTCAAAGGAGCTCGAAGGATATTGTCAGTCTTT
AGGGGTTGGGCTGGATGCCGAGGTAAAAGTTCTTTTGTCTAAAAGAAAAAGGAAGTAAAGTCAAAAAATCTGTCC
GTGACCTATCAGTTATTAATTTTAAGGATGTTGCCACTGGCAAATGTAAGTGTGCCAGTTCTTTCCATAATAAAA
AGGCTTTGAGTTAACTCACTGAGGGTATCTGACAAATGCTGAGGTTATGAACAAAGTGAGGAGAATGAAATGTATG
TGCTCTTAGCAAAAACATGTATGTGCATTTCAATCCACGTACTTATAAAGAAGGTTGGTGAATTTACACAAGCTA
TTTTTGGAATATTTTAGAATATTTTAAGAATTTACAAAGCTATTCCCTCAAATCTGAGGGAGCTGAGTAACACC
ATCGATCATGATGTAGAGTGTGGTTATGAACTTTAAAGTTATAGTTGTTTTATATGTTGCTATAATAAAGAAGTG
TTCTGC

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FIGURE 5021

TAAAAACAGGGAATGACTCTACTAATGATGGGGTCAGCAGATGCTCTTCCAGAAGAACCCTCAGCCAAAACCTGTC
TTCGTAGAAGACATGACAGAAGAACAGTTAGCATCTGCTATGGAGTTACCATGTGGATTGACAAACCTTGGTAAAC
ACTTGTTACATGAATGCCACAGTTCAGTGTATTCTGTTCTGTGCCTGAACTCAAAGATGCCCTTAAAGGTATGCA
GGTGCCTTGAGAGCTTCAGGGGAAATGGCTTCAGCGCAGTATATTACTGCAGCCCTTAGAGATTTGTTTGATTCC
ATGGATAAAACCTTCTTCCAGTATTCCACCTATTATTCTACTGCAGTTTTTGCACATGGCTTTCCACAGTTTGCC
GAGAAAGGTGAACAAGGACAGTATCTTCAACAGGATGCTAATGAATGTTGGATACAAATGATGCGAGTATTGCAA
CAGAAATTGGAAGCAATAGAGGATGATTCTGTTAAAGAGACAGACTCCTCATCTGCATCGGCAGCGACACCTTCT
AAAAAGAAAAGTTTAAATCGATCAGTTCCTTCGGTGTTGAGTTTGAAACTACCATGAAATGTACAGAATCTGAAGAA
GAAGAAGTCACCAAAGGAAAGGAAAATCAACTTCAGCTTAGCTGTTTATCAATCAGGAAGTCAAGTATCTTTTT
ACAGGACTTAAATTGCGACTTCAGGAAGAAATCACCAAACAGTCTCCAACGTTGCAAAGAAATGCCTTGATATC
AAATCTTCCAAGATCAGCCGGCTGCCTGCTTACTTGACCATTAGATGGTTCGATTTTTTATAAAGAGAAGGAA
TCTGTGAATGCCAAAGTTCCTAAGGATGTTAAATTTCTCTTATGTTGGATATGTATGAACTGTGTACACCAGAA
CTTCAAGAGAAAATGGTGTCTTTTCGATCCAAATTCAGGATCTAGAAGATAAAAAAGTGAATCAGCAGCCAAAT
ACAAGTGACAAAAGAGTAGTCCCCAGAAAGTAAAGTATGAACCTTTTCTTTTGCTGATGATATTGGCTCC
AATAATTGTGGATACTATGACTTACAAGCAGTACTAACACACCAGGGAAGGTCTAGTTCTTCAGGTCAATTATGTA
TCATGGGTGAAAAGGAAACAAGATGAATGGATTAAGTTTGATGATGACAAAGTCAGCATCGTAACACCAGAAGAT
ATCTTACGGCTTTCGGTGGTGGAGACTGGCATATCGCTTACGTTCTACTCTATGGGCCCTCGCAGAGTTGAAATA
ATGGAAGAGGAAAGTGAACAGTAATCTTCATTTTAGTATTTATGCTTAGATGTGAAAATAAATGTTATTTGTTGA
TCATTTCTATAATCCAGAGCTTTAGAGGAAGACACATAGGTGGGTTTATGTTTCACCTCATTGGAACAAAAGAG
GACAGAAGCAGACCACTCTGTGCACCAACCTAAAAAATTACAGAGAAGAGAAAATTATCTTTGGATTGTGCTGCC
CTATATAAAGGTGGCAGAAAGACATTTTTTAAAAAGCTTATTATTTCTTGCAATTATTTTAAAAAGTTTCAGAGTTGA
AATGCCTTTCAACCAATTCCTTCTGTGGTCATTTTTCTTGCTGCCTTTTTACCCAAGATTCAGCAGTCAGATGT
TTACTGCACACCTATTACCTATTATTTGCTGTTCTTGCAATGGTTCAAACCACCACTCTGTAGCCACCCATCCTTT
GCCTTATCTAACAAACATTTTTCCAGGAAGGTGAAAAGGAAGTGTGCTCTCATTGTGTGACTCAGTGCTGCTG
TCCATCCCATGGAACATGGGCACAATCAAGTATTTGTCCAGCCTATTGCAGGCTTTTCCTGACTTTAAATAAA
TTGTGATCAATAATAGTACCTTTGATTATACATTTATTATTGTGTCTCTCTCTGATGTACTGTGGATTGTACATT
TAACTTTGGAATGGCTTTGTAATAATCAGTCTTAAGAAAATGTTGACAAGCTCTGGTTGCTTATTTTTAGAAAAT
GAGGACATTTAATAATAATAAAAAAAGGGATTAATAGCTTTTGACCTCAAGTCTTTGTCTCTGAGTGTGG
AGCTTGGCTGAAGACATGTTTAATACTGTACAATTTCTGAAGATGGTTATTAACACTGTGCTGTAAAGCATCCAT
TTAAAAATATGTTATCTTCTTTGCCTGCC

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FIGURE 5022

GGTATTCAGGAAGGAACACAATGTACCAAATGTAAAAATAACTGGGCACTGAAGTTTTCTATCATATTATTATAC
ATTTTGTGTGCCTTGCTAACAATCACAGTAGCCATTTTGGGATATAAAGTTGTAGAGAAAATGGACAATGTCACA
GGTGGCATGGAAACATCTCGCCAAACCTATGATGACAAGCTCACAGCAGTGGAAGTGACCTGAAAAAATTAGGT
GACCAAACCTGGGAAGAAAGCTATCAGCACCAACTCAGAACTCTCCACCTTCAGATCAGACATTCTAGATCTCCGT
CAGCAACTTCGTGAGATTACAGAAAAACCAGCAAGAACAAGGATACGCTGGAGAAGTTACAGGCGAGCGGGGAT
GCTCTGGTGGACAGGCAGAGTCAATTGAAAGAACTTTGGAGAATAACTCTTCTCATCACCCTGTAAACAAA
ACCCTCCAGGCGTATAATGGCTATGTCACGAATCTGCAGCAAGATACCAGCGTGCTCCAGGGCAATCTGCAGAAC
CAAATGTATTCTCATAATGTGGTCATCATGAACCTCAACAACCTGAACCTGACCCAGGTGCAGCAGAGGAACCTC
ATCAGCAATCTGCAGCGGTCTGTGGATGACACAAGCCAGGCTATCCAGCGAATCAAGAACGACTTTCAAATCTG
CAGCAGGTTTTTCTTCAAGCCAAGAAGGACACGGATTGGCTGAAGGAGAAAGTGACAGAGCTTGACAGCGCTGGCT
GCCAACAACCTCTGCGTTGGCCAAAGCCAACGACACCCTGGAGGATATGAACAGCCAGCTCAACTCATTACACA
GGTCAGATGGAGAACATCACCCTATCTCTCAAGCCAACGAGCAGAACCTGAAAGACCTGCAGGACTTACACAAA
GATGCAGAGAATAGAACAGCCATCAAGTTCAACCAACTGGAGGAACGCTTCCAGCTCTTTGAGACGGATATTGTG
AACATCATTAGCAATATCAGTTACACAGCCCACCACCTGCGGACGCTGACCAGCAATCTAAATGAAGTCAGGACC
ACTTGCACAGATACCCTTACCAAACACACAGATGATCTGACCTCCTTGAATAATACCCTGGCCAACATCCGTTTG
GATTCTGTTTTCTCTCAGGATGCAACAAGATTGTGATGAGGTGAGGTTAGACACTGAAGTAGCCAACCTTATCAGTG
ATTATGGAAGAAATGAAGCTAGTAGACTCCAAGCATGGTCAGCTCATCAAGAATTTTACAATACTACAAGGTCCA
CCGGGCCCCAGGGGTCCAAGAGGTGACAGAGGATCCCAGGGACCCCCCTGGCCCCAACTGGCAACAAGGGACAGAAA
GGAGAGAAGGGGGAGCCTGGACCACCTGGCCCTGCGGGTGAGAGAGGCCCAATTGGACCAGCTGGTCCCCCGGA
GAGCGTGGCGGCAAGGATCTAAAGGCTCCCAGGGCCCCAAAGGCTCCCGTGGTTCCCTGGGAAGCCCGGCCCT
CAGGGCTCCAGTGGGGACCCAGGCCCCCGGGCCCCACCAGGCAAGAGGGACTCCCCGGCCCTCAGGGCCCTCCT
GGCTTCCAGGGACTTCAGGGCACCGTTGGGGAGCCTGGGGTGCTGGACCTCGGGGACTGCCAGGCTTGCTGGG
GTACCAGGCATGCCAGGCCCCAAGGGCCCCCGGCCCTCCTGGCCCCATCAGGAGCGGTGGTGCCCTGGGCCTGC
AGAATGAGCAACCCAGCACCGGAGGACAATGGCTGCCCGCCTCACTGGAAGAACTTCACAGACAAATGCTACTA
TTTTTCAGTTGAGAAAGAAATTTTGAGGATGCAAAGCTTTCTGTGAAGACAAGTCTTCACATCTTGTTTTCAT
AAACACTAGAGAGGAACAGCAATGGATAAAAAACAGATGGTAGGGAGAGAGGCCACTGGATCGGCCTCACAGA
CTCAGAGCGTGAAAATGAATGGAAGTGGCTGGATGGGACATCTCCAGACTACAAAAATTGGAAAGCTGGACAGCC
GGATAACTGGGGTCATGGCCATGGGCCAGGAGAAGACTGTGCTGGGTTGATTTATGCTGGGCAGTGGAACGATTT
CCAATGTGAAGACGTCAATAACTTCATTTGCGAAAAAGACAGGGAGACAGTACTGTATCTGCATTATAACGGAC
TGTGATGGGATCACATGAGCAAATTTTCAGCTCTCAAAGGCAAGGACACTCCTTTCTAATTGCATCACCTTCTC
ATCAGATTGAAAAAAAAAAGCACTGAAAACCAATTACTGAAAAAAAAATTGACAGCTAGTGTTTTTACCATCCG
TCATTACCCAAAGACTTGGAATAAAATGTTCCCAGGGTGATATGCTGATTTTCATTGTGCACATGGACTGAA
TCACATAGATTCTCTCCGTGAGTAACCGTGCGATTATACAAATTATGCTCTTCAAAGTATGGAACACTCCAATC
AGAAAAAGGTTATCATTGGTTCGTTGAGTTATGGGAAGAACTTAAGCATATACTGTGTAAACAGTGCCATACATTT
CTAAAAATCCCAAGTGAGGAAAAATATGCAGACATACAGATATATAGGCCAACTATTAGTAATAATATGAAATAT
ACTTAAAGAGCTTTTAAACTTTGTATTTTTGTACAAAATATTTGTCTTTTACAATTTTTTCTTTTTTTTTTTT
TTGTCATTTTACCGACATAATACATGGAGCCAAAGAAAAATAAATGGTACTAATAAAAACCTCCTAGGGTTTCCT
GTCAGATTTAATTCTACCCAGTGGCAAAGAATTTTTCAATTGTGGCTTTAAAAAATAATTAAATATACATGTA
TATATATAT

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[illegible]

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FIGURE 5024

MKRSSVSSGGAGRLSMQELRSQDVNKQGLYTPQTKEKPTFGKLSINKPTSERKVSFLFGKRTSGHGSRNSQLGIFS
SSEKIKDPRPLNDKAFIQQCIRQLCEFLTENGYAHNVSMKSLQAPSVKDFLKIFTFLYGFLCPSYELPDTKFEEE
VPRIFKDLGYPFALSKSSMYTVGAPHTWPHIVAALVWLIDCIKIH TAMKESSPLFDDGQPWGEETEDGIMHNKLF
LDYTIKCYESFMSGADSFDEMNAELQSKLKD LFNVD AFKLESLEAKNRALNEQIARLEQEREKEPNRLES LRKLK
ASLQGDVQKYQAYMSNLESHSAILDQKLNLGLNEEIARVELECETIKQENTRLQNIIDNQKYSVADIERINHERNE
LQQTINKLTKDLEAEQQKLWNEELKYARGKEA IETQLAEYHKLARKLKLIPKGAENSKGYDFEIKFNPEAGANCL
VKYRAQVYVPLKELLNETEEEINKALNKKMGLED TLEQLNAMITESKRSVRTLKEEVQKLDDLYQQKIKEAEED
EKCASELESLEKHKHLLLESTVNQGLSEAMNELDAVQREYQLVVQTTTEERRKVGNNLQRLLEMVATHVGSVEKHL
EEQIAKVDREYEECMSEDLSENIKEIRDKEYEKKATLIKSSSEE

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FIGURE 5025A

GAGAAGAAGTGGCAGGTGATGCTGAAGCGGGGAGAAGCGGCAGAGCCGGCCACACAGTGCAGGGGATGGAGACA
GGTGTCTGGGCTGGTCTCTCTGCAGCATCCTCAGTTGTTGGAGGGCAGTCATCCTCAGGCCGTACCCAGCCAGAGA
AGAAAAAGAACAGTGTGAAGCCACGTGTGATAGCCGTCCAACATCGGCTCTTCCCTCCAATTACATTGTAGTTGA
TTGTAGTCTCAAACCATGAATTATGTGGGACAGCTGGCTGGGCAGGTGATTGTCACTGTGAAGGAAGTCTACAAG
GGCATTAAACCAGGCCACCCTCTCTGGGTGCATTGATGTCATCGTGGTACAGCAGCAGGATGGCAGCTATCAGTGT
TCACCTTTTACGTTTCGGTTTGGAAAGCTGGGAGTCTGAGATCCAAAGAGAAAGTGATTGATATAGAAATCAAC
GGCAGTGCAGTGGATCTTCACATGAAGTTGGGTGATAACGGAGAAGCTTTCTTTGTTGAGGAGACTGAAGAAGAA
TATGAAAAGCTTCTGTGTTACCTTGCCACCTCACCATTCTACTGAAGATCAGTTCTTTAAAGATATTGACACC
CCTTTGGTGAAATCGGGTGGAGATGAAACACCATCTCAGAGTTCAGACATCTCACACGTCTTGAAACAGAGACA
ATTTTTACTCCAAGTTCTGTGAAAAAGAAAAACGAAGGAGAAAGAAATACAAACAGGACAGTAAGAAGGAAGAG
CAGGCCGCATCTGCTGCTGCAGAAGACACATGTGATGTAGGCGTGAGCTCCGATGATGACAAGGGGGCCAGGCA
GCACGAGGATCTTCAAATGCTTCTTGAAAGAAGAAGAATGTAAAGAGCCTTTGCTCTTCCATTCTGGGGATCAT
TACCCCTTATCTGATGGAGATTGGTCCCCCTTAGAGACCACCTATCCCCAGACAGCGTGTCTTAAGAGTGATTCA
GAGCTGGAGGTGAAACCTGCGGAGAGCCTGCTCAGATCAGAGTCTCAGATGGAGTGGACGTGGGGCGGATTCCCA
GAGTCCACCAAGGTGAGCAAAAGAGAACGATCTGACCATCATCCTAGGACAGCTACAATTACACCATCAGAAAAT
ACTCATTTTCGGGTAATTCCAGTGAGGACAACCTCATCAGTGAAGTTGAGAAGGATGCTTCCATGGAAGACACT
GTCTGTACCATAGTGAAGCCCAAACCCAGAGCCCTGGGTACACAGATGAGCGACCCAAACATCTGTGGCAGAGCTT
CTCGAACCTCCTCTTGAGAGTACTCAGATTTTATCTATGTTAGATGCTGACCACCTTCCCAACGCAGCCTTAGCG
GAGGCGCCCTCAGAAATCCAAACCGGAGCTAAAGTAGACTCGCCGTCAAAGAAGAAAGGTGTTCAAAAAGAAGC
CAACACCAGGGACCTGATGATATTTACCTTGATGACTTAAAGGGTCTAGAACCTGAAGTTGCAGCTCTTTATTTT
CCTAAAAGTGAATCGGAGCCCGGTTCCAGGCAGTGGCCCGAGTCTGACACACTCTCTGGCTCCAGTCCCCACAG
TCCGTGGGAAGCGCAGCTGCAGATAGCGGCACCGAGTGCCTCTCAGATTCTGCCATGGACTTGCCGTGACGTTACC
CTCTCCCTTTGCGGGGGGCTCAGTGAATAATGGAGAAATTTCAAAGAAAAATTCATGGAGCATATCATTACTTAT
CACGAATTTGCAGAAAACCTGGACTTATAGACAATCCTAACCTTGTAATAAGGATATATAATCGTTACTATAAC
TGGGCTTTGGCAGCTCCCATGATCCTTAGCTTGCAAGTATTCAGAAGAGCTTGCCCTAAGGCCACAGTTGAGTCC
TGGGTGAAAGACAAGATGCCAAAGAAATCTGGTTCGCTGGTGGTTTTGGCGAAAGAGAGAAAGCATGACCAAACAG
CTGCCAGAAATCCAAGGAGGGAAAATCTGAGGCACCGCCAGCCAGTGACCTGCCATCCAGCTCCAAGGAGCCGGCC
GGTGCCAGGCGCGCCGAGAATGACTCCTCGAGTGACGAGGGATCACAGGAGCTCGAAGAATCCATCACAGTGGAC
CCCATCCCCACAGAGCCCTGAGCCACGGCAGCACAATTCATATAAGAAAGTCTCTCCGCCTCTCCTCAGACCAG
ATCGCAAACTGAAGCTCCACGATGGCCCAAATGATGTTGTGTTTAGTATTACAACCCAGTATCAAGGCACCTGT
CGCTGTGCAGGGACCATTTACCTGTGGAATGGAATGACAAGATCATCTTTCTGATATTGATGGGACAATAACC
AAGTCGGATGCTTTGGGACAGATTCTCCACAGCTGGGCAAAGACTGGACCCACCAGGGTATAGCAAAGCTCTAC
CATTCATCAATGAGAATGGCTACAAGTTTCTGTACTGCTCGGCTCGTGCCATCGGCATGGCCGACATGACCCGT
GGCTACCTGCATGGGTCAATGACAAGGGCACAATCTTGCCCCGGGGCCCCCTGATGCTGTCCCCCAGCAGCTTG
TTCTCCGCCTTCCACAGAGAAGTGATAGAAAAGAAACAGAGAAGTTCAAATTTGAGTGTCTAAATGATATCAAG
AATCTGTTTGCCCCGTCTAAGCAGCCCTTCTATGCTGCCTTTGGAAACCGTCCAAATGATGTCTATGCCTACACA
CAAGTTGGAGTTCCAGACTGTAGAATATTACCGTGAACCCCAAGGGTGAATTAATACAAGAAAGAACCAAAGGA
AACAAGTCAATCGTATCACAGGCTGAGTGAGCTCGTGGAGCATGTGTTCCCCCTTCTCAGTAAGGAGCAGAATTCC
GCTTTTCCCTGCCCCGAGTTTCTGCTACTGGCGAGACCCGATCCCTGAAGTGGACCTGGATGACCTG
TCTTGAGGCGGCACCTCAGTGGGTGGGCAGGGCTTGGTCCCCCTCCCCACAGCAAGGGAAGGCAGCTGGCTCTTC
TGCTGACCTCAGATACCAGCCTTCCCCAGCGGGGACGGGTGCTTCTGGAGCTGGTCCCGCCATCTCCTTTGCCT
TCCCAGGCCAGCTGCTCAGGCTCGGCAGGTCTGCAGCTCAGCTCCTGGAAGGAGAAGGGAGGAAGTGGGCTGGG
GCTGGAGGCTGGGATCCCTCCTTTGTGGGTGCGACACATGTTTCTGCTGTGAGCTGGGGCTCCTTCCATTGC
ATCATTTTAAAGGAAGAAAAAGCAGCTAAAAAAGAGTGGACCAAAACACTGCACACAGTGAAGTGTTCCAGTTT
CCACTGGGCAGTTGAGGTGGCTTCTGTAACCAGGGCTGTCTTCAGATGTCAGGGTCCCTGAACTGCTGCGGGCCC
AGTCAGTGATGCTGGCTGAAGCTGCCTGTGCACGTTTCTTCTGCTGCTGCTCATTCTCTGCTACACTGAAGGGG
TCAGCTGCTCCAGTGGGCCAAGTTGGGCAGGACCCCCGCCCCCTGCAGGGCCCATGCACCAGAGCCACTGAGCCCA
GTCCCATAAACCTGGCCCTCTTTGGGGAAAGATCCCCACAGAGCATCCTCTCTATCTGTGACAACCTCACAG

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FIGURE 5025B

CCCTTAATTTCTTAGTCTCACCAGAAGAACAGGTCTCACAAGTATATATTTGATGTCTGTAATAAAAGTGGGAA
GGTGGGTCTTAAACAGACCAAACCCCGCCCCGCCCAACAACCTCTGCTTTAGGGAGGCCTCCGAAATGCAGA
TAGGCGGTTGAGTGGGGTCTTGGGAAGAGCGCTGAATCCCTCTGCTTGCCTGGTGTGGGCCTTTGGAAAGCA
TCTTGCCTTGGGACAGGATTTCTAAAATTCTGTGATTGAGATTTGTCAGGGAAGCACAGTGAAGCTTGCTTAAAG
GCACTGGCCAGCAGTGTGTGACTTTGGCTTTTGGGATCACACCCTGTAATCGGGCCCGTGAAGCAGCGTCAAAG
AGGGGTCTTGGAGCTCCTATGGAGCAGACTGCCCCCGAGCAGTGTCCCAGCCTAGCCCTGTGAGACCCCATGG
GGACACGGGTGCCTATGTATTTTCACTAAAATATACATGGTAGCTCCATTTACTGATGCGGTGTGAATGAGCTCA
CATCGTGTCTGAAGAGATGGCACCAGGGAAAGGTGTGCCATAAGCTGCTCCAGAGCTTTTGGTATGCTGAGTGTT
GACAGAGCTGCACCTTTAACATCAAGAGAAGTGTGAGGAGCCAGAACCAACCCAGGTCTTGGTCTCCATTGGC
GAGAACACAGGACGTGGTGGTTCCTGAGCAGAGAGGGATCTGCAGATACAGGCTTGGCGCTCGGGGTGGTCTCGT
GGCCAACTCTTCATGCCCCTGCCGTTGTAGTGGAACCTCTACATGTTTTAGTTTGCTTACCTAAAATAATGCTG
ATCTAGAGATAGAGAAATAGGGGTGGTTATTTTCCAGATTGGAGAGTTGAAAGTCCCTGACTGATTTAGCCAT
TTTCTAGTGCTTGTGCGATGCAGAGACAATGTTGAAATCCCTTAAACACAGTTCTCAGTGGCAAAACCTAGGAA
GGCTCATGTTCCAGAGAAGGGACCACATGAGCCTTCTCCCATGCAAAGCTTCCCCAGCTTAAATAGTTGATAA
GGACTAATTGTTTAAATGAGTTTATTTATCTACAGTAGGTTAGGGATCCTGGGTTCTGTTTATATGAAGTTCTTCC
CAGTTTGTGAATTCTAGTACAGCAGCCATGCAGCCACCTTATTTATAGATGCCATCTGTGTGCTCTTGGACTA
CCTTCTATTTAGAGGAAGAATGAGAGCTTTGTGTGTTTAACTGAGCTTATAGTAGGACTTCTTTGCATATGTATG
GTACTGAAAAATCTTAATATACATCTTTAATCCTTTTATAGGTTGTCTTTAAAGAGTTTTTGAAGTCTTTTCTTTT
TCTTGACAGCTCTTCTCTTTGGACACATGGGCCTTCTTAGAGGGTTCAGTCTAGGACCCGGCTCTCCTGGCCCTG
TGTTGAGGGTAGCTGGTCCCTCTGTCCCTGTGTCTGCTAGCACTAGACTTTGTTGCTGCAGATTGATCCAGTGGG
TACATAGGCTAATTAATGTGAGTCTTTTTCTTGTGTTTAAAGGAGTCCCTCTTGCTGAAAGTAGATGATTACTATT
GCTGTAGTGTTAGGAAAGTATTAAGTTTGTGCTGAAAATCCATTGCCATTGGGTACAAATGACATTTGTTCTTTC
TGTGAAAGAGATGCCCTCGAGTGTGTTTGTACACAAACCTTAGGATGGTGAGTTGAAGCATCACCCCTCGCGCTA
TCTTCAGTGACGGGTGACGGCTCAGGGAGATGGCAGGCAGATTGGGCTCTAAGTCATTATTCTCTCAGTTACTCC
ATTGGTGAAATGGCCCTTTCCCTCTTTGCAGTTCAGTCTAAGTCTCGTATTGCTTTGCTGTCTGTGTGCTGAAG
CTCGTCCCGTGTGAGTTGCTGTCTGCCCTTGTGAGGCTGTGAGGTGCTCGTGTAGACCTGGAGCATGCAGGCTG
CCTCCGTTTTTGGGTACTGTGTTGTGTTTGTCTGTCTTAAACATCTGCATAGTTTTCAACTGGAAAAAGAAA
AACTTAAAAATGGGATGTCCTAAAATGAAAGTGTCTCAAAGTCACAGAACCAACCGAGGGACAAAGGAGATTGGA
TGACTGGGAAGCGCTGGCCCGGAACAGCCCTGCAACTGTGGGGCCTGCACACAGCCCTTCCACAGTTGGCACTG
CAGGTGCAGGCCAACCTTTAAAGAATAAACAAGGAAGTCAGTCTTTCACTTTTACAAGTTGGCAAAAACAGA
CTTCCGGGGAATTTGATGTTTTCCCGTGTGTAGAGCTTCCAGGGTTTAAATAAACTGGTTAAAAATTGAGTCT
TTCCCTGAAGTAAGTGCTCTTTCCAGATGAAAACACTACTCTTTTGGTTTTGTTTGAAGTAAGAAAGGGAGGGGAA
ACTTTGCTCTTTTAAATAATTATGTTTACGCTATGATGAAGTATTTGATTATTAGACAGCAATGTCTACTAATAAGT
TTTAAGTTGTCAAAGTTAATTGTAAACATCATCAGTACAGTACTCTTAGTTACAGTAAAGCAATTGTTGCAAGA
TGAATGGCTAATATTTTGGTGCAGTGTTTGATGTTCAAAACAAAATGTTACAACAATAAACGAACATAACAT

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FIGURE 5026

GAATTAAACAACCACCATGTCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTGAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTACCATGTTCCCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTGAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGACTGAAAGAAGCTTTAGCTAAAATCTTCCAGTTACATTGTCTTACTCTCTTTTACTTCTCAGACACTTCCC
CCACCCTCATAGAACCTGTTGCATGCAACTTAGTTTACAGCTTTGCCTCTTCTTTTTGATGTATTTATTCCAGA
CCTTTCTGCCACTTAGCACTTGTATAATCAGACTGGAAATGGGGATGAGGGTGTAAATTGTATTGAAAAAGATCG
CGAATAAAAATCAACAAATGTGAAAGCCCAGAAAAATATATTCTGTTTCTGGTTTTGCTGGATTTTACATTTT
TATATAATAAAAATGTTATTTTGAATAAAGATTATGCTGACTCAAATGCAATGT

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FIGURE 5027

GAATTAAACAACCACCATGTCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTACCATGTTTCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTTCAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGACTGAAAGAACTT

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FIGURE 5028

AACCACCACCATGTCGAGCAAAAGAACAAGACCAAGACCAAGAAGCGCCCTCAGCGTGCAACATCCAATGTGTT
TGCTATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAGAGATGGTTT
CATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTTAGGGAAGAATCCAACATGATGAGTATCTAGATGCCAT
GATGAATGAGGCTCCAGGCCCATCAATTTACCATGTTCCCTCACCATGTTTGGTGAGAAGTTAAATGGCACAGA
TCCTGAAGATGTCATCAGAAATGCCTTTGCTTGCTTTGATGAAGAAGCAACTGGCACCATACAGGAAGATTACTT
GAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGAAGCACCTAT
TGATAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAAAGATGACTG
AAATAACTTCAAATTCAGCCAAACGTTCCCTTGTTGCCACTTTGGGTATTCTGAGATTTTCTCTTGATGCCCTT
AGCTTTACAGCTTTTGCAATTTCCCTGTTGTATTTATTCTCAGCCATTTTGGGCATATGTATCTTTATAATCAGACT
GGAAACGGGACTTTCTATTAATATCATTTTTCAGAATAAAAAATAGGGTAATTTAACCTACCAGCCCTTCTCCCC
AATAACTGTGGTCTATACAGAGTCAATATATTTTTTCAGAGAAAGTTATTCGCTCGATTTTTTCTGAATCATAAT
TAACTTTATGATAAAATA

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FIGURE 5029

MSSKRTKTKTKKRPQRATSNVFAMFDQSQIQEFKEAFNMIDQNRDGFIDKEDLHDMLASLGKNPTDEYLDAMMNE
APGPINFTMFLTMFGEKLNKTDPEDEVIRNAFACFDEEATGTIQEDYLRELLTTMGDRFTDEEVDELYREAPIDKK
GNFNYIEFTRIILKHGAKDKDD

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FIGURE 5030

ATGCACGCACACACGCATACAGACACCACACACGAGAGAGAGAGATACAAAAGCAGACCAGAGGCACCTTTTAGA
CTGACACATGAGTGGATTTCGGAGTCTGCAGGTTGCAGCAGAGGAAACTGTGAGCTGGAGAGGCAACCTCATTCT
AGCAGCGGCAGAGTTTTGGGGCCTCTTTGGAGACAGGGACGTGGGCACAGGGATCTAATGGAGACAGCCCATCAG
CCTGCAGAAGGAACCAGGTCATTGGCCCTGGCAGATCCTTCTGCCATAGCCTGCTATTGGGTCTGATAACATC
CAGGACTCAGGACTCAGCTTTGACTTTGCTTTTGGCTGCCCCTATTTCAGACATGAACTTGAAAAAGGAGGCAACA
CTTCACGATCGTTTTGAGAGAACAACACAGGCAAATTTGGAATCAGACTCTTCACATTCAAATCAAAAAGCCTC
TG TAGTTTGA ACTTCAATGGAAAACATGAAAAGGTGAACAGTCAGCCAGGCAAAGGCAATCATGTTCAAGACC
TTGAGCACCTTAGACCCTGACTGTGCAAGATTTGAAGGGACGACTGCTTCTCTAAGCCTCAGAGCCTTGCTCTT
TGCATTTCAGCAGGATAATGAATCTAGATTTTATTTCTGTTCTTTGCCAGACTTGTACAGCAGGCAAAGTGT TTG
AAAATCAAAGGAAAAGAAGATATTGACTTGGATAATCTCTTCAGAGAGGCCATGGAGGGAAACCAGGAGTGTCTC
ACTGAACTTGTGAAGAAGCCACAGCCAAGCCCTGGGGCCAGTCATCCTGCAGCAGTGACCACTCCCCGGCAGGG
AGTGCAGCCAATACAGACAGTGGTGTGGAATGACTGGCAATGCAGGGGGCAGCACTGAAGACCTCTCCAGCTTG
GACGAGGGACCTTGCAATTGCTGGCACTGGTCTGTCCACTCTTCGCCGCTTGAGAACCTCAGGCTGGACCAGCTA
CATCAACTCCGGCCAATAGGGACCCGGGGTCTCAAAGTGGCCAGCTTGTCCACACCGGTGAGACCTGGGTGTGG
GAGTGTCTGCCAAAGTTGCGGACTGCCAACCACAGCTGGTACTGTCCAGGGCCTGCCCTGAGCACACTGACATCT
GCCCCTGCTGAAGATGCAAAGCCTGTTGCAGCAGGAGCTGCTGGCACCAGCCCTGATCATTCCCTCCTTTTGCAA
TGCCCTCAGCTCTTTTATTTCCATCTGTTGTTCTATGATAGGCTGCTCTCCACGTTTCTGATAATTATGGGGTA
AAACCGGGAAGGCTGCAGACATCAGAGGAGAGCTCTATATTCTCTACTTTAAATGTTGCCTAAGACAAGCAAC
AAACTCAATGTACTTTGCCCTCTGAGAGAGCTCAGAATCCTTGTCTCAGGAATCATGCGATCAATGCAAAGGAG
CTCGCCATGATCGCCACCGGCGGCCTGCTAAGGATTTCCGCCAGAAAGCAGGATCCACTCCGCCCCCAAGCCAG
ATACCCAAGCGCAAGCGGAAAGCCAAGAAGAGGCGCAAGAACGACGTGGTGGTGGTTAATGTGTTTGGAGCACTA
AATACGACTTGA

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FIGURE 5031

AGAGCTTCTTTGAAGGGCAGTCTGCACCATGGGACTCGGCTAAGAAAGATGAGAACAGAATGAAGAACAGATACG
GGAATATCATTGCATACGATCATTCCTGAGTGAGGCTGCAGACAATAGAAGGAGACACAACTCAGACTATATCA
ATGGCAATTATATCGATGGTTATCATCGACCCAATCATTACATTGCTACCCAAGGGCCAATGCAGGAAACCATCT
ATGACTTCTGGAGGATGGTGTGGCAGGAAAACACTGCAAGTATCATCATGGTGACCAATCTTGTTGGAAGTGGGAA
GGGTCAAATGCTGCAAATACTGGCCAGATGACACAGAGATATATAAAGACATTAAAGTTACCCTAATAGAAACAG
AACTACTGGCAGAATATGTGATAAGAACATTTGCTGTTGAAAAGAGAGGTGTGCATGAAATCCGAGAGATCAGAC
AGTTTCACTTCACTGGCTGGCCGGATCATGGGGTCCCCTACCATGCCACCGGCCTGCTGGGATTCTGTGCGGCAAG
TCAAGTCCAAGAGCCCGCCAGTGCAGGCCCACTGGTGGTGCAGTGCAGTGCAGTGGTGCAGGGAGGACTGGCTGTT
TCATCGTCATTGATATCATGTTGGACATGGCCGAAAGGGAAGGGGTCTGTAGACATCTACAACCTGCGTCAGGGAGC
TGCGGTACCGAGGGGTGAACATGGTGCAAACAGAGGAGCAGTATGTGTTTATCCACGATGCGATCCTGGAAGCCT
GTCTTTGTGGGGACACCTCTGTGCTGCTTCCCAAGTTAGGTCTCTGTATTATGACATGAACAACTGGATCCAC
AGACAACTCAAGCCAGATTAAAGAGGAATTCGGACGCTAAACATGGTGACACCAACGCTGCGAGTAGAGGACT
GCAGCATCGCACTGTTGCCCGGAACCATGAGAAAAACCGGTGCATGGACATCCTGCCCCAGACCGCTGCCTGC
CCTTCTCATCACCATCGATGGGGAGAGCAGCAACTACATCAATGCTGCCCTCATGGACAGCTATAAACAGCCTT
CAGCTTTTATAGTCACCCAGCATCCTTTGCCAAACACAGTGAAAGACTTTTGGAGACTGGTCTCTGGATTATCACT
GCACATCCGTAGTTATGCTAAATGATGTGGATCCTGCCAGTTGTGTCCACAGTACTGGCCAGAAAACGGAGTAC
ACAGACACGGCCCCATCCAGGTGGAATTTGTCTCTGCTGACCTGGAAGAGGACATCATCAGCAGGATATTCCGCA
TTTACAATGCCGCCAGACCCCAAGATGGATATCGGATGGTGCAGCAATTCCAGTTCTTGGGCTGGCCGATGTACA
GGGACACACCAGTGTCTAAGCGCTCCTTCTTGAAGCTCATTCGCCAGGTGGACAAGTGGCAAGAGGAGTACAATG
GCGGGGAAGGCCGCACGGTTGTGCACTGCTTGAACGGGGGAGGCCCGCAGTGGGACGTTCTGCGCCATCAGCATCG
TATGTGAGATGCTCCGGCACCAGAGAACCGTGGATGTCTTTACGCTGTGAAGACACTGAGGAACAACAAGCCCA
ACATGGTCGACCTCCTGGATCAGTACAAGTTCTGCTACGAGGTGGCCCTGGAATACTTGAATTCTGGCTGATGGT
GTAACAGCTCTGCAACAATCCCTTTTCATACCACAAAGCCAAGACGTTCCATGGTATTTGTGCAAAAGAGATGA
AGACTTCTCAATATGCTTATTTTGTCTTTGCATAATTGGCTCTTTTTTAAGAGCCCAAGAAAGTGTCTTAAAATTG
CTTGCACTGCCCAATCCCAGTAATGCTGCTGCTGACAGAAACACACACAGCCACAGTTGCCAAATCCCGTAC
TCCTTGCCACCGGCTTCCTAGAGCAGCGTAGACAGCTGGTAAACTGAAGAGCACAACTATATTCTTATGAAGGAA
TTTGTACCTTTGGGGTATTATTTTGTGGCCCGTGACCCCTCGTTATTGTTACAGCTGAGTGTATGTTTTTGTCTG
TGGAGAAATGCTATCTGGCATTATGGTAATATATTATTTAGGTAATATTTGTACTTTAACATGTTGCATAATATA
TGCTTATGTAGCTTTCCAGGACTAACAGATAAATGTGTAATGAACAAAGATATGTTGTATGAGTCGTCGTTTCTG
TCAGATTTGTATTGTTTCCAAGGGAAAAGCTTGGGGGAGGACTCAGTTCACAAAATGCAAACTCAACGATCAGA
TTCACGGACCCAGAGCTTTTCCATGTGTTTATATTGTAAATATTTTGTATTTTCATCAAATTATTTATTCAATAAA
AGAAATTTTTGTG

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FIGURE 5032

CGGAGGGTGGGGAGCGGAAAGCAGGACGCACGGCTCCCGCGGCCCGCTGGCTGCCCTTCCCGCCAGCGCAGGTGT
GGGACGGGCGGCGGACTAGGCACAGAGCTCGGGGAGCAGGCACAGGGAGTGTGGAGCCTGGCGGCGGGACGGCGG
GATCCGGTGGGAGCCGGAGTCCCGCCGAGGGGGGCTGGAGGTGGAGGGGCGCGGCGAGGCCGCGATGAAGCCGAG
CGGCGAGGACCAGGCGGCGCTGGCGGCCGGCCCCCTGGGAGGAGTGCTTCCAGGCGGCCGTGCAGCTGGCGCTGCG
GGCAGGACAGATCATCAGAAAAGCCCTTACTGAGGAAAAACGTGTCTCAACAAAAACATCAGCTGCAGATCTTGT
GACAGAAACAGATCACCTTGTGGAAGATTTAATTATTCTGAGTTGCGAGAGAGGTTTCCTTCACACAGGTTTCAT
TGCAGAAGAGGCCGCGGCTTCTGGGGCCAAGTGTGTGCTCACCACAGCCCGACGTGGATCATCGACCCCATCGA
CGGCACCTGCAATTTTGTGCACAGATTCCCGACTGTGGCGGTTAGCATTGGATTGTCTGTTGACAAGAGCTTGA
ATTTCGGAGTGATTTACCACTGCACAGAGGAGCGGCTGTACACGGGCCGCGGGGTTCGGGGCGCCTTCTGCAATGG
CCAGCGGCTCCGGGTCTCCGGGGAGACAGATCTCTAAAGGCCCTGGTTCTGACAGAAATTGGCCCCAAACGTGA
CCCTGCGACCCCTGAAGCTGTTCTTGAGTAACATGGAGCGGCTGCTGCATGCCAAGGCGCATGGGGTCCGAGTGAT
TGGAAGCTCCACATTGGCACTCTGCCACCTGGCCTCAGGGGCCGCGGATGCCTATTACCAAGTTTGGCCTGCACTG
CTGGGATCTGGCGGCTGCCACAGTCATCATCAGAGAAGCAGGCGGCATCGTGATAGACACTTCGGGTGGACCCCT
CGACCTCATGGCTTGCAGAGTGTTGCGGCCAGCACCCGGGAGATGGCGATGCTCATAGCTCAGGCCTTACAGAC
GATTAACATATGGGCGGGATGATGAGAAGTGAAGTGCAGGCTGAGGCAAGCTGCTCCCAAGGCCTCCCTGGGCTGCT
GTGGGCTCCTGGGGAGGTGGCCCTCGTGGCCACGCTCCATGCCAGTGGCTCACGCTCTGCTCCTGGCTACCCCA
GAGGGAGTTGTACGCTACAGTGAGTGGCTGGCCTTTTAAATCGACGTCTCTCTCACCAGGATTTGGTGTTTAGC
TGTTTCTCTCTTTAATCTCACGTAGCCTTTTTCAGGTTAGTACGTGTTCTTCTGTCAGGGCCAAAACATAAATCT
CCTGTGAAATACGTATTGATAATCCAATCTTGATTTTCCCCCAGAATATAAATCTCAGGTAATAAGGCTTTAG
AATGCTGATAAAGCGGATCGTTCTCAGGCCCTCCCCCGGAGTACTTCAGAATGCAATAAATCAAAATAATGGC

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FIGURE 5033

MKPSGEDQAALAAGPWEECFQAAVQLALRAGQIIKALTEEKRVSTKTSAADLVTETDHLVEDLIISELRRFPS
HRFIAEEAAASGAKCVLTHSPTWIIDPIDGTCNFVHRFPTVAVSIGFAVRQELEFGVIYHCTEERLYTGRRGRGA
FCNGQRLRVSGETDLSKALVLTEIGPKRDPATLKLFLSNMERLLHAKAHGVRVIGSSTLALCHLASGAADAYYQF
GLHCWDLAAATVIIREAGGIVIDTSGGPLDLMACRVVAASTREMAMLIAQALQTINYGRDDEK

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GGCACGATTCTGGGTACAGGTGATGAGGGATTTGAGGAATGGGGTAAAACCTTAAGAAGGTCCAAGAGCGGCAGTA
CAACCCCTTTGCCCATTTGAATATCAGCTCACCCCTTATGAGATGTTAATGGATGACATTCGCTGCAAAAGATACAC
CTTGCGAAAAGTGATGGTGAATGGTGATATTCCCCCTCGGTTAAAAAAGAGTGCTCATGAAATCATCTCGACTT
CATCAGATCCAGACCTCCTTTAAATCCAGTCTCAGCCAGAAAACCTGAAACCAACTCCACCACGGCCACGGAGCCT
CCATGAAAGAATATTAGAAGAAATTAAGCAGAAAAGAAAGCTGCGGCCTGTATCACCAGAGGAGATTAGACGTAG
CAGATTAGATGTGACTACCCCTGAATCTACAAGAATCTTGTGGAGTCATCTATGGTGAATGGAGGTTTGACATC
ACAAACAAAAGAAAACGGGTAAAGTACCTCACAGCAGGTGCCTGCACAGCGGAAGAAGCTCCTCAGAGCCCCAAC
TCTGGCCGAACCTGGACAGCTCTGAGTCTGAGGAAGAAACGCTGCACAAGTCGACCAGCAGCAGCAGCGTGTCTCC
CTCTTTCCCTGAAGAGCCAGTCTGAGGAGCCGTGTCCACAAGGAAGAAGCCTCCAAAATTCTGCCCATATCAT
AACACCCCGAGCCAGAGAGACGGCAGCCACCCAGAGACGACATTCCATTGAAAAGGAAACGCCTACTAACGTGAG
GCAGTTCCTGCCGCCTTCCAGGCAGAGTTCGCCGTCTCTTGAGGAATTCTGCTACCCAGTGGAATGCCTCGCTCT
TACTGTGGAAGAAGTGATGCATATTCGCCAGGTCTTGGTGAAGGCAGAGCTGGAAAAATACCAACAGTATAAAGA
CATCTACACCGCCTTGAAAAAAGGAAAGCTCTGCTTTTGTGGCCGAACCAGGAGGTTTTCTTCTTCACTTGGTC
TTATACCTGTCACTTCTGTAAGAGGCCGGTGTGCTCAGAGTGTTGCAAAAAGATGCGGCTGCCCTCCAAACCATA
CTCCACTCTTCCCTATCTTTTCATTGGGACCTTCTGCTCTGCAAAAGAGGGGAAAGTAGTATGAGGTGAGAAAAC
CTCCACTGCCCATCATCGGCCACTTCGGAGCATTGCCAGGTTCTCCTCAAAATCTAAGTCTATGGACAAATCAGA
TGAAGAACTCCAGTTTCCCAAAGAGTTGATGGAGGACTGGAGCACCATTGGAGGTGTGTGTGGACTGCAAGAAGTT
CATTTGCGAAATCATCAGTTCAAGCCGGCGCAGTCTGGTGTGGCCAAACAAAAGGGCCCCGATTGAAAAGGAAAAC
GCAGTCTTCTACATGTCTCGCCAGGCCCCCTCGGAGTACTGCCCTTCAGAGAGGACGATCAGTGAGATCTGAGC
CTCGTGCCCTTTCAGCTGCTTTTGTGCTACGAGTCAGCGTCCGTGCGCGAGGACACTGAGCCGGGCTGGCTCTCCT
TCTGTGGTTTTATTTAATGGGCTTGAATTTGCATTAGATCAGATTTTGGCCGCATCACATTGTTCCACAGACTG
AATGCTGTGTTTCGATTCGATTGATGAACAGTGAACAGGTCCGCCAATTGCTCGTTTGCCTGAGAGAGGACAACAG
TTTGAAACTTACTTTTGTGTGTGTGGCTTTGGAAGCCAGTAGTACTTCTTAGTTAGTTTACTGTTTCTTACTGTTCC
TCGAATAATCTCCTGACTAAGGCAAAAAAAAAAAGCTTCTCCTACGAGAATCAGTCTAACACAGATGCCGATGTC
AGCACAGCCCTAAGCAGTAAGTCATATTGGCATTTCACAGTGACTGTGTTTTCTATCCCGTGTACAGAGAGATCCA
GAGCCCTACACTCCACGACCTGGGGGCTCACAGCACAGAACCTAGAAGCACCTGCTGACACTCTTCAACTGATTT
TTAAATGTTGTTGCTTGGAGATAAAAAATTACATAAGGGACTTTTTGCCTGCATTCTAGTGCAAAACATCTGAAGA
GCTGTACACCCACAAGGGTGACTATTTCCCTGAGTGGCCGTGTTGTCCAGTGCCCTGGTTTCACTGCTCCTGA
GTGGATGACAGGTCTTCATTCTCTATCTTGAATGTATTATGGTTACTAATAGTTTTATAATGGAGGTCTAAGAAT
TAAAGTTGTGTGGGAGTTTTCAGGACAAAGGAAGGCTAAAAGTTTGTCAAGACGTTGAGCGTATTTTGGTTACCTA
TGAGAAGGGTTGTGACAGTGTACAGTGGCAGCTGTTGGCCACGCTGCAGAAATGAGCTGGAGCTCATGGGTTTTC
AGCTACATTTTTTATAAATTTGTAGTACATCCATCTTGAGTAAATTAAGCCACAATTTGGTACCTAGGGTCTCAA
ACTAAAATTTATTTTTATAAATGAATTTTAAAAGAAAAAATATCTACTTCTTTTAAAGTTAGAAGAAAAATTAACC
TGCTGACAGGCAACATTTTGGGGTGCTTTCTGCACTAGTTTTCTTGTAAATGATTTGAGTGAGTAGGTTTGGT
TTCTGACGAAAGTAGACTGGAGGGTAGCATTGTATGCCTCAAATGTCTCAGTGTGTTTGGCTCATACGTGGGCTA
TACTGTATTATTTTGGTATGCTTACAAATGACTAACCAATCAAATTGTCAATTAATGTTTGGAAAATCTGTTAATG
CACATGCACAATAATTTCTGAAAGCCATAGGACATGTCTGTAGTCAGCACCACGATAGCACCGTTTTCATGAAAG
GCATGGCGGCTGCATTTTCATACCACATCAAATACAGTAACATTTCTATACTAAATTAACAGTAATACCTCAAA
CTGCTCCGGTAGTAGTTTTTAATGGATTGAAATTTACAGTTTAGTAAAAGGCTTAAATTTACTTATACCTTATGAA
ATAAATTTTACCAGTTGACTAAAATAATGCATGTTAACAGTTGGTCTGTATTTGCATGTAAAAGTGGGCCACCAG
AGAACCCTTATTGATTACTTAAGTGTTTACATTATTTTAAAGACTCCTGTTTAAAGAGCTTCAGAAATTGTACTGG
GTGAATCTCATTTATAAACTTCTTAAGAGACTATCTGAACCTCTATACTCCAGACAGTTAGGTGGGAGTATAAAT
CTACCCCTTTTGATGACCCAGGCTTGAGTTTTTAAAATGACTACCCAGAAGGGCACAAAGGGGGAAGGAAATGGT
ATTTGTATATGTATAATAATATGCACCTAGGAGAATGTGCTTTTTAAAATAATGACTACTGTTTTATTAAAACA
TAAGAAACTACACCCCAAAATAAGACTTTTCATTACATTCACAAAGCAAACATCTAGTACATGCTCTTCACTTC
ACTTTATGATAGTGTATTTGGATGATTTGGGCATTACGATCACCTTACCACAGCAGACAATCATATCTTCAA
CAGCATTAACCGGAGTTTGCCAAGTGCATTAAGAGAGGTCACGTGGAGGGTACGTTTCATATGAAACAAATCTGCAGAA
AGTGGGGTAAAGAAAGGGCACATGGCACAGTTAAAGTTGTAGAAATCAAATTAATCTATCATTTTTTGTGGCAAAAG

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FIGURE 5034B

AAAGTCTTACATTTAACCCCCCTTTCTACCACCCCCCTCCACACTTCACGTCAGCTACATAGTTTCCACAGGGTA
ATTCACTAAGAGCTTGTGGAGCTTGGTTTTAAAAATCCTTAGCCTGGTCTGACTTTAGGCATAGCTTCCAGTTCTT
CCTTCCGTGTCCTGGTTTCTGTTCAGTTTTACTTCTAATCCAACAACAAAAGAAATGTCTGGCTGGTCTCAGCT
AGAGTCTGATGTGCTTAGAGCATGTGTGCGTATCTGAACCATCATCCCTGCTCTCATCTCAGCTCCCTCCAGGC
CTGAGCACCGGTTCCTTTTGTCCCATACGTCATGAAGTCACACTATTGGGAAACCTGTGCTTCCCTCTCCATGGC
TTAACTCCCCTGTGTCAGTGTGCGAGTGTATAAGAATGCTTGTAATACTGTAATATATTTATTAATATTTGAAAGGC
ATTCATTCACTGAGTGGACAGTGGGAATTAAGTCTCCCAAGGCAAGTGAATGAATGATTGACGTACGTTGATTTAAC
AATCTTACTAGATTTTAATTCTTAAGGATTTCAAATGAAACCAGAAGGTGGTTATGTAAGAGGCTTAAATGATC
TTATGTTTTAAAGAGATTCTGTTATTAGCACCATGAACTCGTACTATGAAATTTTAAAGCCTTTTATTTTCTAAC
TATATTACTGTAGGACTGGATATTAGGTGTCATATAGGAAACACAAAAGTTTATTGCTGTTTGCTAAAGCAAAT
AGCAGAAAATTTTGTATATGCAAACTGTTGAAGGACCATAGAGAAATGTGTACTACTGACGGGGCTTTTACTAG
GCTTCCTGCGTGTGTAAAAGTCGAGGTATTGCTGGCATTGAGGGTGACATGATGGTACTAAATGTTTTCCATTAA
AGTCTTCTATTTTAAATTTAGAGAAAAATAAAATGGCTTTCCATCAG

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FIGURE 5035

MRDLRNGVKLKKVQERQYNPLPIEYQLTPYEMLMDDIRCKRYTLRKVMVNGDIPRLKKSAAHEIILDFIRSRPPL
NPVSARKLKPTPPRPRSLHERILEEIKAEKLRPVSPEEIRRSRLAMRPLSMSYSFDLSDVTTPESTKNLVESM
VNGGLTSQTKENGLSTSQQVPAQRKKLLRAPTLAELDSSESEEEETLHKSTSSSSVSPSPFPEEPVLEAVSTRKKPP
KFLPISSTPQPERRQPPQRRHSIEKETPTNVRQFLPPSRQSSRSLEEF CYPVECLALTVEEVMHIRQVLVKAELE
KYQQYKDIYTALKKGKLCFCCRTRRF SFFTWSYTCQFCKRPVCSQCCKKMRLPSKPYSTLP IFSLGPSALQGES
SMRSEKPSTAHHRPLRSIARFSSKSKSMDKSDEELQFPKELMEDWSTMEVCVDCKKFI SEI I SSSRRSLVLANKR
ARLKRKTQSFYMSSPGPSEYCPSERTISEI

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FIGURE 5036

TTCTTTCTTGCCGTGCCGATAGCGCTCACGCAAGCATGGTTAACGTCCCTAAAACCCACCAGACTTTCTGTAAGA
AGTGTGGCAAGCACCAACCCACAAAGTGACACAGTACAAGAAGGGCAAGGATTCTCTGTATGCCCAGGGAAAGT
GGCGTTATAACAGGAAGCAGAGTGGCTATGGTGGGCAGACTAAGCCGATTTTCCAGAAAAAGGCTAAACTACAA
AGAATACTGTGCTAAGGCTTGAGTGC GTTGAGCCCAACTGCAGATCCAAGAGAATGCTGGCTATTAAAAGATGCA
AGCATTTTGAAGTGGGAGGAGATAAGAAGAGAAAGGGCCAAGTGATCCCGTTCTAAGTGTATCTTTTATTATGA
AGACAATAAAA

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FIGURE 5037

GGCACGAGGCAGACCATGAGGTTTAACTGAGTGAACACCGCTGTTCCGGGGCTCTGCCTCTCGCTGAACGCTCCT
GCTGGGCTGGGGCCTCCCGAGTAGCTGGAAGTACAGATAATCACAGCTGGCTTATCAATATTGCTGTTTGATGCG
ATCCTGACCAGTGCAACCACGGGATGCTCCTGCTCGGTGCGCTTGAGAGGGCCTTGCTGGTTTTCTCAGAGCGG
AAGAGCTCCTGAACAAGACGGTCAAGAGAAAGACTCACAGGCTGCTGCGGGAGAACAGCTTGTACACCTGTGTAC
GAGCCCTGGTCTCATAGCTCCCTGTTGGATGTGTGAGAAAGAGGAATGCAAGGACAGTGAGGCCAGGTGGGCAG
TGCCATCACCTCACCAAGTGAATGTGGTGGTGGCTGATGAGGCCGAGGCCCTGGTGTTCAGGAGCACCTT
TCTGGGGTCTGCAGGCTCACTGCAGAGGAGCGGTCTGTTACATCTTCCCATTTGGAGAACCTCTCTCAACCGTGC
TGTAGCTGGTTCTGCAGAAACAGGAAGTACAGGATTTTCATGGGCTGGCTCTGCTCGCCTCGACTGAGCTTCACAC
CTCTGGATGCCACATGCTCTCTCCCAAACACTGCTTTCAGTGCAAGGTAGTGGGCCTAAGGGGTTTTGGTTGTCT
TTTTTTTTTTTCATTTTTTAAAAATTTTAAATTTTTTATTTATTATTATTTTTTTAGAGACAAGGCCTCGCTCTATCGC
CTAGGCTGAAGCACAGTGGTGCATCACAGCTCGCTGCAGCCTTGACCTCCTAGGATCAAGCCATCCTCCTGCCT
CAGCATCCACAGTAGCTGATGTGCACCACCAGACCCGCTCATTTTTTTCTATTTTTTATTATTTTAGAGATGGGGA
TCTCACTGTGTGGCCAGGCTGGTCTCAAACCTCGGGCTCAAGCAATCCTCCACCTTGGCCTCAAAGTATTGA
GATTACAGGCATGAGCCACTGCACCCGGCCTTTCTCATTTTTTATTTTTTAAATTGACAGACGTAACAGTGCGCATT
TATCACGCACAACACAATGCTTTGGGAATGGTTAAATCTAGCTCACAAATGCATTACCTCACACGGTTGTCAATT
TTGTGGTGAGGCTTGGTTGTATGTTTTGTTTCATTCAATGTTTTTACATCCTTGGAGTCTCCTCTGGGTCCGTCCT
TTCTTTGCTGTCAATGCTGGCTTGCCTAAGGCCACCGCCACCTGCGTACGAGCATTTTAACTCTAGAGTGAGTG
ACAGCCTTTTTATGGTTGGTGTACTATTTATTTTCTGCTCTAACTTCTCGTGGTCTTATAAACTTGTGAGG
ATGTGTGTTGCGTTGAATTCTGCATGTCTTTTTTTGCCACCCCTCAGGTTAAGCTGGTACTAACTTATCCCCAG
AGGAAACAGGGTTTATGAGCACTGACAGATGTCTTCCCTGGGCAAAAAAAAAAAAAAAAAAAGTATATGTATACAC
ACACACATACACATTTATATTTATATTTCTTAAAGCTTTTAAATCCCTTTCATTCCCTGATATCTCAGAGATTTCA
AATCATTGAACACTGAAGTATATTTTTTCAGGCCAGATGAAAAATTGTATTAAACCCTATTCTGGTCAGGCGCA
GTGGCTCACGCTATAATCCCAGCACTTTGGGAGGCCGAAGTAAGCAGATCACCTGAGGTCGGGAGTTCAAGACA
AACCTGGCCAACATGGTGAACCCCTGTCTCTACTAAACTACAAAAAAATTAGCCTGATGTGGTGTGTGTGCCT
GTAGTCCCAGCTACTTAGGAGGCTGAGGTAGGAGAATTGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCCAAA
ATTACGCCACTGCCTCCAGCCTGGGCAACAGAGCGAGACAGTCTCAAAAACAACAACAACAACAACCAACCCCTAT
TCCTTGCCCTTTGTAGGAGTCAAAATAAATGAACCTCTTTTTTCTTTTTTTTATTATTATACTTTAAGTTCTGGGG
TACACGTGCAGAAATGTGAGGTTTGTACATAGGTATGCACGTGCCATGGTGGTTTGTGTCACCCATCAACCTGT
CACCTACATTAGGTATTTCCCTAATGTTATCCCTCCCTAGCCCTCCATCCCTGACAGGCCCTGGTGTGTGAT
GTTCCCTCCCTATGTCCATGTGTTCTCATTGTCTCAAAATAAATGAATTTACACAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAA

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FIGURE 5038

MPFARCAWRGLAGFLRAEELLNKTVKRKTHRLRENSLYTCVRAPGLIAPCWMCQKEECKDSEARWAVPSPSPK

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FIGURE 5039

GAATTCccccccccccccccagtgctccgCGCGCTCTTGACGTCCGGAGCCCCCTGGAGTAGGCGCTTCCGGCCATT
CATACTGCAGTCGGTCAGTGTTTCGGTTGAAGGATTCTGTGTGCTGTGCGGACCCAGAGGGTGACGGCGCCGCTAGG
ATGAAGCTCGTGAGATTTTTGATGAAATTGAGTCATGAAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTTCGGTATTTTATTCTACCAGACAGTTTACCT
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGGCAGAGGAAGAGGGGGTCCTAGGCGATAATGTCTCTCAAGATTT
CAAAGTCATATGAGATTTGGGATATTTTTTGTACAGGTTGTGTTTGTATTATGTCAGTTTTTAATAAACATAAATG
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTGTAGTAGTTTCCTCCACATTCACGAAATTACCACAGTGAGA
GCTAAGCATTTCTACTGGGCAGTTTCATTTTTAGTTGATCAGGTTTTAAGTTTTTGAAGTAAAATTTTTCTTTTT
CTTTTTATGATGAATAAGGTTAAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC
AATTCACAAATCAGGTAGCCCCGTAACCATATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT
GGACAGAAGGAAAAGTGATGTATGGAATAAGGAGTGAGATACAGCAACAGCCGGATTAGTTACAGTTCAGCGTTT
GCCTTATTTGAATATGGTTTTGAACAGTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCATGTACTGAGAAACCTTTAAGCTGAACCTGAGATATGT
AAAGAGACTTTAGGCTAAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT
TTTATTGCTTTACTCTTCATTCTGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTTTTGGTATTTTCGGAAAC
TAAAGTCCTTATGGGATGGGGTCTAGAATTGATTCTCCTTTCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG
GTAAAAAGTTGTCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTTGTTTCTTTTG
CTTTTAATCAGTTCTTAATAGGATATAGTTTTATGTTTTCCAAGTTATAACTTGGAGTTAATGGTCACTAGATT
ATCAGTTATGAGCAGTGTTAAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCCTCCTTTATTAAGGGGTTT
TTTGAGAATAAAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTC

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FIGURE 5040A

ATGGGATGGCTGTGGATCTTTGGGGCAGCCCTGGGGCAGTGTCTGGGCTACAGTTCACAGCAGCAAAGGGTGCCA
TTTCTTCAGCCTCCCGGTCAAAGTCAACTGCAAGCGAGTTATGTGGAGTTTAGACCCAGCCAGGGTTGTAGCCCT
GGATACTATCGGGATCATAAAGGCTTGTATACCGGACGGTGTGTTCCCTGCAATTGCAACGGACATTCAAATCAA
TGCCAGGATGGCTCAGGCATATGTGTTAACTGTCAGCACAACACCGCGGGAGAGCACTGTGAACGCTGCCAGGAG
GGCTACTATGGCAACGCCGTCCACGGATCCTGCAGGGCCTGCCCATGTCTCACAATAACAGCTTTGCCACTGGC
TGTGTGGTGAATGGGGGAGACGTGCGGTGCTCCTGCAAAGCTGGGTACACAGGAACACAGTGTGAAAGGTGTGCA
CCGGGATATTTCCGGGAATCCCAGAAATTCGGAGGTAGCTGCCAACCATGCAGTTGTAAACAGCAATGGCCAGCTG
GGCAGCTGTCTATCCCTGACTGGAGACTGCATAAACCAAGAACCCAAAGATAGCAGCCCTGCAGAAGAATGTGAT
GATTGCGACAGCTGTGTGATGACCCTCCTGAACGACCTGGCCACCATGGGCGAGCAGCTCCGCCTGGTCAAGTCT
CAGCTGCAGGGCCTGAGTGCCAGCGCAGGGCTTCTGGAGCAGATGAGGCACATGGAGACCCAGGCCAAGGACCTG
AGGAATCAGTTGCTCAACTACCGTTCTGCCATTTCAAATCATGGATCAAAAATAGAAGGCCTGGAAAGAGAACTG
ACTGATTTGAATCAAGAATTTGAGACTTTGCAAGAAAAGGCTCAAGTAAATTCAGAAAAGCACAACATTAAAC
AACAATGTTAATCGGGCAACACAAAAGCGCAAAAGAACTGGATGTGAAGATTAAAAATGTCTATCCGGAATGTGCAC
ATTCTTTTAAAGCAGATCTCTGGGACAGATGGAGAGGGAAAACAACGTGCCTTCAGGTGACTTTTCCAGAGAGTGG
GCTGAAGCCCAGCGCATGATGAGGGAACCTGCGGAACAGGAACCTTTGGAAAGCACCTCAGAGAAGCAGAAGCTGAT
AAAAGGGAGTCGCAGCTCTTGCTGAACCGGATAAGGACCTGGCAGAAAACCCACCAGGGGGAGAACAAATGGGCTT
GCTAACAGTATCCGGGATTCTTTAAATGAATACGAAGCCAAACTCAGTGACCTTCGTGCTCGGCTGCAGGAGGCA
GCTGCCCAAGCCAAGCAGGCAAATGGCTTGAACCAAGAAAAACGAGAGAGCTTTGGGAGCCATTAGAGACAAGTG
AAAGAAATAAATTCCTGCAGAGTGATTTACCAAGTATCTAACCACTGCAGACTCATCTTTGTTGCAAACCAAC
ATTGCGCTGCAGCTGATGGAGAAAAGCCAGAAGGAATATGAAAAATTAGCTGCCAGTTTAAATGAAGCAAGACAA
GAACTAAGTGACAAAGTAAGAGAACTTTCCAGATCTGCTGGCAAAACATCCCTTGTGGAGGAGGCAGAAAAGCAC
GCGCGGTCTTTACAAGAGCTGGCAAAGCAGCTGGAAGAGATCAAGAGAAAACGCCAGCGGGGATGAGCTGGTGCGC
TGTGCTGTGGATGCCGCCACCGCTACGAGAACATCCTCAATGCCATCAAAGCGGCCGAGGACGCAGCCAACAGG
GCTGCCAGTGATCTGAATCTGCCCTCCAGACAGTGATAAAGGAAGATCTGCCAAGAAAAGCTAAAACCTTGAGT
TCCAACAGTGATAAACTGTTAAATGAAGCCAAGATGACACAAAAGAAGCTAAAGCAAGAAGTCAGTCCAGCTCTC
AACAACTACAGCAAACCTGAATATTGTGACAGTTCAGAAAAGAAGTGATAGACACCAATCTCACAACTCTCCGA
GATGGTCTTCATGGGATACAGAGAGGTGATATTGATGCTATGATCAGTAGTGCAAAGAGCATGGTCAGAAAGGCC
AACGACATCACAGATGAGGTTCTGGATGGGCTCAACCCCATCCAGACAGATGTGGAAGAATTAAGGACACCTAT
GGGAGGACACAGAACGAAGACTTCAAAAAGGCTCTGACTGATGCAGATAACTCGGTGAATAAGTTAACCAACAA
CTACCTGATCTTTGGCGCAAGATTGAAAGTATCAACCAACAGCTGTTGCCCTTGGGAAACATCTCTGACAAATG
GACAGAATACGAGAACTAATTCAGCAGGCCAGAGATGCTGCCAGTAAGGTTGCTGTCCCCATGAGGTTCAATGGT
AAATCTGGAGTCAAGATCCGACTGCCAAATGACCTGGAAGATTGAAAGGATATACATCTCTGTCTTGTCTC
CAAAGGCCCAACTCAAGAGAAAATGGGGGTACTGAGAATATGTTTGTGATGTACCTTGGAAATAAAGATGCCTCC
CGGGACTACATCGGCATGGCAGTTGTGGATGGCCAGCTCACCTGTGTCTACAACCTGGGGGACCGTGAGGCTGAA
CTCCAAGTGGACCAGATCTTGACCAAGAGTGAGACTAAGGAGGCAGTTATGGATCGGGTGAAAATTTAGAGAATT
TATCAGTTTGCAAGGCTTAATTACACCAAGGAGCCACATCCAGTAAACCAGAAAACACCCGGAGTCTATGACATG
GATGGTAGAAATAGCAATACACTCCTTAATTTGGATCCTGAAAATGTTGTATTTTATGTTGGAGGTTACCCACCT
GATTTTAACTTCCAGTCGACTAAGTTTCCCTCCATACAAAGGTTGTATTGAATTAGATGACCTCAATGAAAAT
GTTCTGAGCTTGTAACCTTCAAAAAACATTCAATCTCAACACAACCTGAAGTGAGCCTTGTAAGAGGAGGAAG
GAAGAGTCAGACAAAATTTATTTTGAAGGTACGGGCTATGCTCGAGTTCCAACTCAACCACATGCTCCCATCCCA
ACCTTTGGACAGACAATTAGACCACCGTGGATAGAGGCTTGCTGTTCTTTGCAGAAAACGGGGATCGCTTCATA
TCTCTAAATATAGAAGATGGCAAGCTCATGGTGAGATACAACTGAATTCAGAGCTACCAAAAGAGAGAGGAGTT
GGAGACGCCATAAACACGGCAGAGACCATTCGATTAGATCAAAATGGAAAACTCCAAAAGCGTATGTGGATA
AATGTGGACGTTCAAAACACTATAATTGATGGTGAAGTATTGATTTAGCACATATTATCTGGGAGGAATTCCA
ATTGCAATCAGGGAAAGATTTAACATTTCTACGCCTGCTTTCCGAGGCTGCATGAAAAATTTGAAGAAAACAGT
GGTGTGCTTAGATTGAATGATACTGTGGGAGTAACCAAAAAGTGCTCGGAAGACTGGAAGCTTGTGCGATCTGCC
TCATTCTCAGAGGAGGACAATTGAGTTTCACTGATTTGGGCTTACCACCTACTGACCACCTCCAGGCCTCATTT
GGATTTAGACCTTTCAACCCAGTGGCATATTATTAGATCATCAGACATGGACAAGGAACCTGCAGGTCACTCTG

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FIGURE 5040B

GAAGATGGTTACATTGAATTGAGCACCAGCGATAGCGGCGGCCCAATTTTTAAATCTCCACAGACGTATATGGAT
GGTTTACTGCATTATGTATCTGTAAATAAGCGACAACCTCTGGACTACGGCTTCTCATCGATGACCAGCTTCTGAGA
AATAGCAAAAGGCTAAAACACATTTCAAGTTCCCGGCAGTCTCTGCGTCTGGGCGGGAGCAATTTTGAGGGTTGT
ATTAGCAATGTTTTGTCCAGAGGTATCACTGAGTCCTGAAGTCCTAGATTTGACCAGTAACTCTCTCAAGAGA
GATGTGTCCCTGGGAGGCTGCAGTTTAAACAAACCACCTTTTCTAATGTTGCTTAAAGGTTCTACCAGGTTTAAAC
AAGACCAAGACTTTTCGTATCAACCAGCTGTTGCGAGGACACACCAGTGGCCTCCCCAAGGAGCGTGAAGGTGTGG
CAAGATGCTTGCTCACCACCTTCCCAAGACCCAGGCCAATCATGGAGCCCTCCAGTTTGGGGACATTCCCACCAGC
CACTTGCTATTCAAGCTTCCTCAGGAGCTGCTGAAACCCAGGTCACAGTTTGCTGTGGACATGCAGACAACATCC
TCCAGAGGACTGGTGTTCACACGGGCACTAAGAACTCCTTTATGGCTCTTTATCTTTCAAAGGACGTCTGGTC
TTTGCACCTGGGGACAGATGGGAAAAAATTGAGGATCAAAAGCAAGGAGAAATGCAATGATGGGAAATGGCACACG
GTGGTGTGTTGGCCATGATGGGGAAAAGGGGCGCTTGGTTGTGGATGGACTGAGGGCCCGGGAGGGAAGTTTGCCT
GGAAACTCCACCATCAGCATCAGAGCGCCAGTTTACCTGGGATCACCTCCATCAGGGAAACCAAAGAGCCTCCCC
ACAAACAGCTTTGTGGGATGCCTGAAGAACCTTCAGCTGGATTCAAAACCTTGTATACCCCTTCTTCAAGCTTC
GGGGTGTCTTCTGCTTGGGTGGTCTTTGGAGAAAGGCATTTATTTCTCTGAAGAAGGAGGTCTATGTCGTCTTG
GCTCACTCTGTATTGTTGGGGCCAGAATTTAAGCTTGTTTTAGCATCCGCCCAAGAAGTCTCACTGGGATCCTA
ATACACATCGGAAGTCAGCCCGGGAAGCACTTATGTGTTTACCTGGAGGCAGGAAAGGTACGGCCTCTATGGAC
AGTGGGGCAGGTGGGACCTCAACGTCGGTCACACCAAAGCAGTCTCTGTGTGATGGACAGTGGCACTCGGTGGCA
GTCACCATAAAACAACACATCCTGCACCTGGAACCTGGACACAGACAGTAGCTACACAGCTGGACAGATCCCCTTC
CCACCTGCCAGCACTCAAGAGCCACTACACCTTGGAGGTGCTCCAGCCAATTTGACGACACTGAGGATCCCTGTG
TGGAATCATTCTTTGGCTGTCTGAGGAATATTCAATGTCAATCACATCCCTGTCCCTGTCACTGAAGCCTTGGA
GTCCAGGGGCTGTGAGTCTGAATGGTTGCTCTGACCAGTAAACCAAGCCTATTTACAGCAAGGAAATTCACCT
TCAAAGCACTGATTACCCAATGCACCTCCCTCCCCAGCTCGAGATCATTTCAATTAGGACACAAACCAGACA
GGTTTAATAGCGAATCTAATTTTGAATCTGACCATGGATACCCATCACTTTGGCATTCACTGCTACATGTGTAT
TTTATATAAAAAATCCATTTCTTGAAGATAAAAAAATTGTTATTCAAATTGTTATGCACAGAATGTTTTTGGTAA
TATTAATTTCCACTAAAAAATTAAATGTCTTTT

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FIGURE 5041

MGWLWIFGAALGQCLGYSSQQQRVPFLQPPGQSQLQASYVEFRPSQGCSPGYIRDHKGLYTGRCPVCNCGHSNQ
CQDGSIGCVNCQHNTAGEHCERCQEGYYGNAVHGSRCRACPCPHNTNSFATGCVVNGGDVRCCKAGYTGTQCERCA
PGYFGNPQKFGGSCQPCSCNSNGQLGSCHP LTGDCINQEPKDSSPAEECD DCDSCVM TLLNDLATMGEQLRLVKS
QLQGLSASAGLLEQMRHMETQAKDLRNQLLNYRSAISNHGSKIEGLERELTDLNQEFETLQEKAVNSRKAQTLN
NNVNRATQSAKELDVKIKNVIRNVHILLKQISGTDGEGNNVPSGDFSREWAEAQRMMRELNRNFGKHLREAEAD
KRESQ LLLNRIRTWQKTHQGENNGLANSIRDSLNEYEAKLSDLRLRLQEAQAQKQANGLNQENERALGAIQRQV
KEINSLQSDFTKYLTADSSLLQTNIALQLMEKSQKEYEKLAASLNEARQELSDKVRELSRSAGKTS LVEEAEKH
ARSLQELAKQLEEIKRNASGDELVRCAVDAATAYENILNAIKAAEDAANRAASASESALQTVIKEDLPRKAKTLS
SNSDKLLNEAKMTQKKLKQEVSPALNNLQQTLNIVTVQKEVIDTNLTTLRDGLHGIQRGDI DAMISSAKSMVRKA
NDITDEVLDGLNP IQTDVERIKDTYGR TQNEDEFKALTDADNSVNKL TNKLPDLWRKIESINQQLPLGNI SDNM
DRIRELIQQARDAASKVAVPMRFNGKSGVEVRLPNDLEDLKGYSLSLFLQRPNSRENGGTENMFV MYLGNKDAS
RDYIGMAVVDGQLTCVYNLGDREAE LQVDQILTKSETKEAVMDRVKFQRIYQFARLNYTKGATSSK PETPGVYDM
DGRNSNTLLNLDPENNVFYVGGYPPDFKLP SRLSFPYKGCIELDDL NENVLSLYNFKKTFNLNTTEVEPCRRRK
EESDKNYFEGTGYARVPTQPHAPIPTFGQTIQT TVDRGLLFFAENGDRFISLNIEDGKLMVRYKL NSELPKERGV
GDAINNGRDHSIQIKIGKLQKRMWINVDVQNTIIDGEVDFDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTS
GVVRLNDTVGVTKKCS EDWKLVRSAFSRGGQLSFTDLGLPPTDHLQASFGFQTFQPSGILLDHQ TWTRNLQVTL
EDGYIELSTSDSGGPIFKSPQTYMDGLLHYVSVISDNSGLRL LIDDQLLRNSKRLKHIS SSRQSLRLGGSNFEGC
ISNVFVQRLSLSPEVLDLTSNSLKR DVS LGGCSLNKPPFIMLLKGSTRFNKTKTFRINQLLQDTPVASPRSVK VV
QDACSPLPKTQANHGALQFGDIPTSHLLFKLPQELLKPRSQFAVDMQTTSSRGLVFHTGT KNSFMALYLSKGRLV
FALGTDGKKLRKSKKEKCNDGKWH TVVF GHDGEKGRLVVDGLRAREGSLPGNSTISIRAPVYLGSPPSGKPKSLP
TNSFVGCLKNFQLDSKPLYTPSSSFVSSCLGGPLEKGIYFSEEGHVVL AHSVLLGPEFKLVFSIRPRSLTGIL
IHIGSQPGKHL CVYLEAGKVTASMDSGAGGTSTSVTPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPF
PPASTQEPLHLGGAPANLTTLRIPVWKSFFGCLRNHVNHI PVPVTEALEVQGPVSLNGCPDQ

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FIGURE 5042

CCTTTCTGCCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTCATGTCTAAGTCAGA
GTCTCCTAAAGAGCCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGT
GGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATTTGGA
GGCAGAAACTCTGGCCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCAAGGTGGCTATGGCGGT
TCCAGCAGCAGCAGTAGCTGTGTCAGTGGCAGAAGATTTTAATTAGGAAACAAAGCTTAGCAGGAGAGGAGAGCC
AGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGGCCTAGC
TGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAACTCGAGGACTGTGTTTGTGACTA
ATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAGCATTCCAACAAAGCGTTTTAATGTAGAT

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FIGURE 5043

CCTTTCTGCCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTCATGCTCTAAGTCAGA
GTCTCCTAAAGAGCCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACCTGTGAA
AAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGTGG
AAGCAATTTTGGAGGTGGTGGAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCAT
GAAGGGAGGAAATTTTGGAGGCAGAACTCTGGCCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAACCCACGAAA
CCAAGGTGGCTATGGCGGTTCAGCAGCAGCAGTAGCTGTGTCTAGTGGCAGAAGATTTTAATTAGGAAACAAAGC
TTAGCAGGAGAGGAGAGCCAGAGAAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACCTAGCCAAGCAC
AGTGGTGGCAGGGCCTAGCTGCTAC

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FIGURE 5044

MSKSKSPKEPEQQRKLFIGGLSFETTDESLSHCEQWGMLTDCVVMRDPNFKHSRGCGFVTYATVEEVDAAMNAR
PHKVDGRVVEPKRAVSREDSQRPGAHLTVKKIFVGGIKEDTEEHHLRDYFEQLEAILQVVEATVILAITTISLQI
LDP

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FIGURE 5045

CCTTTCTGCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCCTGCCGTCATGTCTAAGTCAGA
GTCTCCTAAAGAGCCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAAGTGTGAA
AAAGATATTGTGGTGGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTGGACCCATGAAGG
GAGGAAATTTTGAGGCAGAACTCTGGCCCCT

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FIGURE 5046

CCTTTCTGCCCCTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTGCATGTCTAAGTCAGA
GTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAA
AAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAA
AATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGA
CCATGACTCCGTGGATAAGATTGTCATTGAGAAATACCATACTGTGAATGGCCACAACCTGTGAAGTTAGAAAAGC
CCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGTGCAAGTGGTTCTGGAAACTTTGGTGGTGG
TCGTGGAGGTGGTTTCGGTGGGAATGACAACCTTCGGTCATGGAGGAACTTCAGTGGTCGTGGTGGCTTTGGTGG
CAGCCGTGCTGGTGGTAGATATGGTGGCAGTGGGGATGGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTGG
AGGTGGTGGAAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAA
TTTTGGAGGCAGAACTCTGGCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGCTA
TGGCGGTTCCAGCAGCAGCAGTAGCTGTGTGAGTGGCAGAAGATTTTAATTAGGAAACAAAGCTTAGCAGGAGAG
GAGAGCCAGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGG
GCCTAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAACTCGAGGACTGTGTTT
GTGACTAATTGTATAACAGGTTATTTTAGTTTTCTGTTCTGTGGAAAGTGTAAGCATTCCAACAAAGCGTTTTAA
TGTAATTTTTTTTTTTTTTGCACCCATGCTGTTGATTGCTAAATGTAATAGTCTGATCGTGACGCTGAATAAATGT
CTTTTTTTTTTTAATGTGCTGTGTAAAGTTAGTCTACTCTGAAGCCATCTTGGTAAATTTCCCAACAGTGTGAA
GTTAGAATTCCTTCAGGGTGATGCCAGGTTCTATTTGGAATTTATATACAACCTGCTTGGGTGGAGAAGCCATTG
TCTTCGGAACCTTGGTGTAGTTGAACTGATAGTTACTGTTGTGACCTGAAGTTCACCATTAAAAGGGATTACCC
AAACAAAGTCATGGAATGGTTATAAAAGTGATTGTTGGCACATCCTATGCAATATATCTAAATTGAATAATGGTA
CCAGATAAAATTATAGATGGGAATGAAGCTTGTGTATCATCCATTATCATGTGTAATCAATAAACAATTTAATTC
TCTTGAA

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FIGURE 5047

MSKSESPKEPEQLRKLF IGGLSFETTTDESLSHFQWGTLTDCVVMRDPNTKRSRGFGFVTYATVEEVDAAMNAR
PHKVDGRVVEPKRAVSREDSQRPDAHLTVKKIFVGGIKEDTEEHHLRDYFEQYGKIEVIEIMTDRGSGKKRGFAF
VTFDDHDSVDKIVIQKYHTVNGHNCEVRKALSKQEMASASSSQRGRSGSGNFGGGRGGGFGGNDNFGRGGNFSGR
GGFGGSRGGGGYGGSGDGYNGFGNDGSNFGGGGSYNDFGNYYN

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FIGURE 5048

AAGTCTCTCTTCACCCCTGCCGTCATGTCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCA
TTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACT
GTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGG
TGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAG
AAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAG
AACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTG
GCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTAGAAATACC
ATACTGTGAATGGCCACAACCTGTGAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCC
AAAGAGGTCGAAGTGGTTCTGGAACTTTGGTGGTGGTTCGTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTC
ATGGAGGAACTTCAGTGGTTCGTGGTGGCTTTGGTGGCAGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTG
GAGGTGGTGGAAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAA
ATTTTGGAGGCAGAACTCTGGCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAACCACGAAACCAAGGTGGC

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FIGURE 5049

ACCCTGCCGTCATGTCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGA
GCTTTGAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGA
GAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTA
TGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAA
GACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAA
GAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGG
GCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGTGGCTTTGGTGGCAGCCGTGCTGGTGGTAGATATGG
TGGCAGTGGGGATGGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTGGAGGTGGTGGGAAGCTACAATGATTT
TGGAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGG

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FIGURE 5050

TTTTCTTAGACATTAAC TGCAGACGGCTGGCAGGATAGAAGCAGCGGCTCACTTGGACTTTTTCCACCAGGGAAAT
CAGAGACAATGATGGGGCTCTTCCCCAGAACTACAGGGGCTCTGGCCATCTTCGTGGTGGTCATATTGGTTCATG
GAGAATTGCGAATAGAGACTAAAGGTCAATATGATGAAGAAGAGATGACTATGCAACAAGCTAAAAGAAGGCAAA
AACGTGAATGGGTGAAATTTGCCAAACCTGCGAGAGAAGGAGAAGATAACTCAAAAAGAAACCCAATTGCCAAGA
TTACTTCAGATTACCAAGCAACCCAGAAAAATCACCTACCGAATCTCTGGAGTGGGAATCGATCAGCCGCCTTTTG
GAATCTTTGTTGTTGACAAAAACACTGGAGATATTAACATAACAGCTATAGTCGACCGGGAGGAACTCCAAGCT
TCCTGATCAGATGTCGGGCTCTAAATGCCCAAGGACTAGATGTAGAGAAACCACTTATACTAACGGTTAAAATTT
TGGATATTAATGATAATCCTCCAGTATTTTACACAACAAATTTTCATGGGTGAAATTGAAGAAAATAGTGCCTCAA
ACTACTGGTGATGATACTAAATGCCACAGATGCAGATGAACCAAAACCACTTGAATTCTAAAATTGCCTTCAAAA
TTGTCTCTCAGGAACCAGCAGGCACACCCATGTTCTCTAAGCAGAAACACTGGGGAAGTCCGTACTTTGACCA
ATTCTCTTGACCGAGAGCAAGCTAGCAGCTATCGTCTGGTTGTGAGTGGTGCAGACAAAGATGGAGAAGGACTAT
CAACTCAATGTGAATGTAATATTAAGTGAAAGATGTCAACGATAACTTCCCAATGTTTAGAGACTCTCAGTATT
CAGCAGTATTGAAGAAAATATTTAAGTTCTGAATTACTTCGATTTCAAGTAACAGATTTGGATGAAGAGTACA
CAGATAATTGGCTTGCAGTATATTTCTTACCTCTGGGAATGAAGGAAATTGGTTTGAAATACAACTGATCCTA
GAACTAATGAAGGCATCCTGAAAGTGGTGAAGGCTCTAGATTATGAACAACCTACAAAGCGTGAAACTTAGTATTG
CTGTCAAAAACAAAGCTGAATTTACCAATCAGTTATCTCTCGATACCGAGTTCAGTCAACCCAGTCACAATTC
AGGTAATAAATGTAAGAGAAGGAATTGCATTCCGTCTCTGCTTCCAAGACATTTACTGTGCAAAAAGGCATAAGTA
GCAAAAAATTGGTGGATTATATCCTGGGAACATATCAAGCCATCGATGAGGACACTAACAAAGCTGCCTCAAATG
TCAAATATGTCATGGGACGTAACGATGGTGGATACCTAATGATTGATTCAAAAACCTGCTGAAATCAAATTTGTCA
AAAATATGAACCGAGATTCTACTTTTCATAGTTAAACAAAACAATCACAGCTGAGGTTCTGGCCATAGATGAATACA
CGGGTAAAACTTCTACAGGCACGGTATATGTTAGAGTACCCGATTTCAATGACAATTGTCCAACAGCTGTCTCTG
AAAAAGATGCAGTTTGCAGTTCTTCACCTTCCGTGGTTGTCTCCGCTAGAACACTGAATAATAGATACACTGGCC
CCTATACATTTGCACTGGAAGATCAACCTGTAAAGTTGCCTGCCGTATGGAGTATCACAACCTCAATGCTACCT
CGGCCCTCCTCAGAGCCCAGGAACAGATACCTCCTGGAGTATACCACATCTCCCTGGTACTTACAGACAGTCAGA
ACAATCGGTGTGAGATGCCACGCAGCTTGACACTGGAAGTCTGTCACTGTGACAACAGGGGCATCTGTGGAACCTT
CTTACCCAACCACAAGCCCTGGGACCAGGTATGGCAGGCCGCACTCAGGGAGGCTGGGGCCTGCCGCCATCGGCC
TGCTGCTCCTTGGTCTCCTGCTGCTGCTGTTGGCCCCCTTCTGCTGTTGACCTGTGACTGTGGGGCAGGTTCTA
CTGGGGGAGTGACAGGTGGTTTTATCCAGTTCCGTGATGGCTCAGAAGGAACAATTCATCAGTGGGGAATTGAAG
GAGCCCATCTGAAGACAAGGAAATCACAAATATTTGTGTGCCCTCTGTAACAGCCAATGGAGCCGATTTTCATGG
AAAGTTCTGAAGTTTGTACAAATACGTATGCCAGAGGCACAGCGGTGGAAGGCACTTCAGGAATGGAATGACCA
CTAAGCTTGGAGCAGCCACTGAATCTGGAGGTGCTGCAGGCTTTGCAACAGGGACAGTGTGAGGAGCTGCTTCAG
GATTCCGAGCAGCCACTGGAGTTGGCATCTGTTCTCAGGGCAGTCTGGAACCATGAGAACAAGGCATTTCCACTG
GAGGAACCAATAAGGACTACGCTGATGGGGCGATAAGCATGAATTTCTGGACTCCTACTTTCTCAGAAAGCAT
TTGCTGTGCGGAGGAAGACGATGGCCAGGAAGCAAATGACTGCTTGTGATCTATGATAATGAAGGCGCAGATG
CCACTGGTTCTCCTGTGGGCTCCGTGGGTTGTTGCAGTTTATTGCTGATGACCTGGATGACAGCTTCTTGGACT
CACTTGGACCCAAATTTAAAAAACTTGCAGAGATAAGCCTTGGTGTGATGGTGAAGGCAAAGAAGTTTCAGCCAC
CCTCTAAAGACAGCGGTTATGGGATTGAATCCTGTGGCCATCCCATAGAAAGTCCAGCAGACAGGATTTGTTAAGT
GCCAGACTTTGTGAGGAAGTCAAGGAGCTTCTGCTTTGTCCGCCCTCTGGGTCTGTCCAGCCAGCTGTTTCCATCC
CTGACCCTCTGCAGCATGGTAACTATTTAGTAACGGAGACTTACTCGGCTTCTGGTTCCCTCGTGCAACCTTCCA
CTGCAGGCTTTGATCCACTTCTCACACAAAATGTGATAGTGACAGAAAAGGGTGATCTGTCCATTTCCAGTGTTC
CTGGCAACCTAGCTGGCCCAACGCAGCTACGAGGGTCACATACTATGCTCTGTACAGAGGATCCTTGCTCCCGTC
TAATATGACCAGAATGAGCTGGAATACCACACTGACCAAAATCTGGATCTTTGGACTAAAGTATTCAAAATAGCAT
AGCAAAGCTCACTGTATTGGGCTAATAATTTGGCACTTATTAGCTTCTCTATAAACTGATCACGATTATAAATT
AAATGTTTGGGTTTCATACCCCAAAGCAATATGTTGTCACTCCTAATTCTCAAGTACTATTCAAATTGTAGTAAA
TCTTAAAGTTTTTCAAAACCTAAAATCATATTTCG

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FIGURE 5051

MMGLFPRTTGALAIFVVVILVHGELRIETKGQYDEEEMTMQQAARRQKREWVKFAKPCREGEDNSKRNP IAKITS
DYQATQKITYRISGVGIDQPPFGIFVVDKNTGDINITAIVDREETPSFLITCRALNAQGLDVEKPLILTVKILDI
NDNPPVFSQQIFMGEIEENSASNSLVMILNATDADEPNHLNSKIAFKIVSQEPAGTPMFLLSRNTGEVRTLTNSL
DREQASSYRLVVS GADKDGEGLSTQCECNIKVKDVNDNPFPMFRDSQYSARIEENILSSELLRFQVTDLDEEYTDN
WLAVYFFTSGNEGNWFEIQTDPRTNNEGILKVVKALDYEQLQSVKLSIAVKNKAEFHQSVISRYRVQSTPVTIQVI
NVREGIAFRPASKTFTVQKGISSKKLV DYILGTYQAIDEDTNKAASNVKYVMGRNDGGYLMIDSKTAEIKFVKNM
NRDSTFIVNKTITAEVLAIDEYTGKTSTGT VYVRVPDFNDNCPTAVLEKDAVCSSSPSVVVSARTLNNRYTGPYT
FALEDQPVKLPVWSITTLNATSALLRAQE QIPPGVYHISLVLTDSQNNRCEMPRSLTLEVCQCDNRGICGTSYP
TTSPGTRYGRPHSGRLGPAAIGLLLLGLLLLLLAPLLLLTDCDGAGSTGGVTGGFIPVPDGSEGTIHQWGIEGAH
PEDKEITNICVPPVTANGADFMESSEVCTNTYARGTAVEGTSGMEMTTKLGAATESGGAAGFATGTVSGAASGFG
AATGVGICSSGQSGTMRTRHSTGGTNKDYADGAISMNFLDSYFSQKAFACAEEDDGQEANDCLLIYDNEGADATG
SPVGSVGCCSFIADDLDDSLDSLGPKFKKLAEISLGVDGEGKEVQPPSKDSGYGIESCGHPIEVQQTGFVKCQT
LSGSQGASALSASGSVQPAVSI PDPLQHGNYLVTETYSASGSLVQFSTAGFDPLLTQNVIVTERVICPISSVPGN
LAGPTQLRGSHTMLCTEDPCSR LI

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FIGURE 5052

CCCACGCGTCCGGATGGTCCTGGTCACAAAATATTAAAGAGACCGACCGCTAAGGGAACAGGAAAAACGTCCGAG
ACAGCCGTTGCAATTACGAATGGACCAGACTTGGTAGCACGGGGCATTGATTGCTGGTGCCCAACCGGACCCTCC
TCCCCTCTTCCCATCCCTTCCCCACCCAAAGCAGGCTCCCGCTGCGGCCGGGACCTCGCATCCCTGCAACGTGG
CCGGGGCTGCATTTTTCATGAGCCTAGGGTGAACAGGTGCGAAGTGCGCTGGGAGCATCCGGCCAGCGGCCGAGC
GCGGGGAACATGGAGAGCGAGCGGACATGTACCGCCAGTTCAGGACTGGTGCTCAGGACTTACGGGGACTCA
GGCAAGACCAAGACGGTGACCCGTAAAAAATACGAACGGATCGTCTAGCTCCTCAATGGCTCCGAGTCGAGCTCC
ACGGACAACGCCAAATTTAAATTCTGGGTCAAATCGAAGGGCTTCCAGCTGGGCCAGCCGGACGAGGTCCGCGGG
GGAGGCGGCGGCCAAGCAAGTGCTCTAGTGCTGTCAAGACCACGGATGGCGTAGGGGTAGATGAGAAGCTAT
CTTTACGACGGGTAGCTGTGGTTGAAGATTTCTTTGACATTATTTATTCGATGCATGTGGAAACGGGGCCAAATG
GAGAACAAATTCGGAACACGCTGGACAAAAGAGAAGTTACAAAGCAATTCAGAGAGCTATGCCTTCTTACCAA
GAGAAGCGGTGACACGATTTCTAATGAGCTGCTCAGAGTGCCAGAAAAGAATGCATTTAAACCCAGATGGAACAG
ATCATAAAGATAATGGAAAACCTCCACTTTGGTGACCAGCATGATTGACTACAACATGCCAATTACCATGGCCT
ACATGAAACACATGAAGCTGCAGCTGCTAAACTCACAGCAAGATGAGGATGAAAGTTCAATAGAAAGTGATGAAT
TTGACATGAGTGATTCAACACGGATGTGAGCTGTGAAGTCTGATCTTAGCTCCAATCTTGAAGAAAGAATGCAAA
GTCCCCAGAATCTTCATGGCCAGCAAGATGATGATTCTGCTGCAGAGAGCTTTAATGGCAATGAGACTCTGGGGC
ACAGTTCAATTGCTTCAGGGGGAACACACAGCAGGGAGATGGGAGACTCCAACAGTGATGGCAAACTGGGCTGG
AGCAAGATGAACAGCCACTGAACCTGAGTGACAGTCCCTCTCTGCGCAGCTAACTTCGGAATACAGAATAGATG
ATCACAACAGTAATGGGAAAAACAAGTATAAGAATCTTCTAATTTCTGACCTCAAGATGGAACGAGAGGCGAGAG
AAAATGGAAGCAAGTCTCCTGCACATAGTTACTCCAGCTATGACTCTGGCAAAAATGAGAGTGTAGACCGAGGAG
CTGAGGACCTCTCACTAAACAGGGGAGATGAGGACGAAGATGACCACGAGGACCATGACGATTCGGAGAAAGTTA
ATGAGACAGACGGCGTTGAAGCCGAGCGGCTGAAAGCTTTTAATATGTTTGTGAGGCTGTTTGTAGATGAAAAT
TGGACCGAATGGTCCCAATCTCTAAGCAGCCCAAGAAAAGATCCAGGCTATCATTGACTCATGCAGGCGACAAT
TCCCTGAGTATCAAGAGCGTGCCAGAAAACGTATACGTACTTACCTCAAGTCCTGCAGGCGGATGAAAAGAAGTG
GTTTTGAGATGCTCGACCTATTCCTTCCCACCTTACTTCAGCAGTTGCAGAGAGTATCTTGGCTTCAGCTTGTG
AGAGTGAGAGTAGAAATGCCGCCAAGAGGATGCGTCTGGAGAGACAGCAGGATGAGTCTGCTCCAGCTGACAAAC
AGTGTAACCAGAGGCGACCCAGGCCACTTACTCAACATCAGCTGTTCCAGGCTCACAGGACGTGCTGTACATCA
ATGGAAATGGGACCTATAGTTACCATAGTTACAGAGGGCTAGGAGGGGGTCTGCTAAATCTGAATGATGCTTCCA
GCAGTGGACCCACTGATCTCAGCATGAAGAGACAATTGGCGACTAGCTCAGGATCCTCCAGCAGCTCAAACCTCCA
GACCCAGCTGAGTCCAACGAAATCAATGCCGTGAGACAGCTTGTGTCAGGATATCGAGAATCAGCTGCATTTT
TATTGCGATCTGCAGATGAACTGGAAAATCTCATTTTACAACAGAACTCGAGACAGACGACCACCATATTTCACTGA
GGTCTAAATTTGCAGTTCCACTAATGACATTTTGATTTCCTAACAGAGATACTTCTGGTCTTACTGCACAGTCTT
TTAAGAGAAATACTTCCATTATGCCACATTGTCCTTGATCCGTAAGTGATGTGTTAAGGTGCTTCAAAGGAACTC
TGACCTCTGAAGTACTTGAGCTACTTTAGTATGTCCAGCCTATTGCTTTTGTGTTTAGTGTCACCATAAATAT
CAGGGGCATAAAAGGCTATCTATTCTTAATTCAAGGATAAAACAGAAGAAGCTTGTGGTATAAAACAATAGTTCA
AGATCCAGCTGAAATATTAGTGGAATTTGCTACTGACTCATTGGACTGAAAGCTGAAGTACCTGGCAAAAAAA

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FIGURE 5053

MHVETGPNGEQIRKHAGQKRTYKAISESYAFLPREAVTRFLMSCSECQKRMHLNPDGTDHKDNGKPPTLVTS MID
YNMPITMAYMKHMKLQLLNSQQDEDESSIESDEFDMSDSTRMSAVNSDLSSNLEERMQSPQNLHGQQDDDSAAES
FNGNETLGHSSIASGGTHSREMGDNSDGTGLEQDEQPLNLSDSLPLSAQLTSEYRIDDHNSNGKNKYKNLLISD
LKMEREARENGSKSPAHSYSSYDSGKNESVDRGAEDLSLNRGDEDEDHEDHDDSEKVNETDGVEAERLKAFNMF
VRLFVDENLDRMVPISKQPKEKIQAIIDSCRRQFPEYQERARKRIRTYLKSCRRMKRSGFEMSRPIP SHLTSAVA
ESILASACESESRNAAKRMRLEQQDESAPADKQCKPEATQATYSTSAVPGSQDVLYINGNGTYSYHSYRGLGGG
LLNLNDASSSGPTDLSMKRQLATSSGSSSSSNSRPQLSPTEINAVRQLVAGYRESAAFLLRSADELENLILQON

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FIGURE 5054

ATCTTGCTGGTTTGC GGCCGGTCTTGATGAAGCGGCGGCGGTGGTGAGAGCGTGGGGAAGGGTGGGGTGAGGGG
GCGAGGCCGAGCTAGGGCGGCGAACTCTCCTCCCTCGGCCCCACCGCGTGGGACGGCGTGAACGTGGTGTCG
GAGGGATGTCAGCCTTCTCTGAGGCGGCGCTGGAGAAGAAGCTGTGCGAGTTGAGCAACTCGCAGCAGAGCGTGC
AGACCTTGTCCTGTGGCTCATTACCACCGTAAACACTCGCGTCCCATCGTCACCGTGTGGGAGCGGGAGCTGC
GGAAAGCCAAACCAAACAGGAAGCTTACTTTTCTCTACCTAGCCAATGATGTCATACAGAACAGCAAGAGGAAGG
GGCCAGAGTTTACAAAAGATTTTGCACCAAGTTATAGTGGAGGCTTTTAAGCATGTTTCAAGTGAACTGATGAAA
GTTGTAAGAAGCACCTTGAAGAGTGTTATCTATTTGGGAAGAAAGGTCTGTTTATGAAAATGATGTATTAGAAC
AACTTAAACAAGCTCTGTATGGTGATAAGAAGCCTAGGAAGCGAACTTATGAACAGATAAAGGTGGATGAAAATG
AAAAGTGTTCCTCTCTGGGATCTCCAAGTGAACCAACACAGACTCTAGATCTCGTTAGAGCATTACAAGATCTGG
AAAATGCAGCCTCAGGTGATGCAGCAGTTTCATCAGAGGATAGCTTCTTTACCTGTTGAAGTCCAAGAAGTATCTC
TATTAGATAAAATAACAGATAAAGAATCTGGAGAAAGGCTTTCCAAAATGGTAGAGGATGCGTGTATGTTGCTGG
CAGATTACAATGGCAGATTGGCGGCAGAAATAGATGATAGAAAGCAACTCACTCGAATGTTAGCAGATTTTCTTC
GTTGTCAAAAGGAAGCCCTTGCAGAGAAAGAGCATAAATTGGAAGAGTACAAGCGCAAGCTAGCCAGAGTTTCCC
TGGTGCGCAAAGAACTCAGGTCCCGGATCCAGAGCCTGCCAGACTTATCTCGATTGCCAATGTCACTGGCAGCC
ACATGCACCTGCCCTTTGCGGAGACATCTACAGTGAAGATTGATGGACCAGCCTCTTTCCAGGTCCCAGGACTT
TGCAAGAGATGGAGACAGGTTAGGTGGATAGTCTGTAGTGTTATTTTTGTATATTGTTGAGAAAGAAACACTAA
CAAAAGGAACAACGAGTAATTTATAAAATTGTTTAAAATGTTGGTTTGTGTTACTATTTTTATTGGTAAATTAACAT
GACTTAATTTGAACAAAGTGATGATTTGTGTGATTAATAAGCTCACAAATAGTGATTATTTTCAAAAGATCTTT
TTGTAATTTTTTTTTTTGATCCAAGGCCTTGTGAGAAATCTCTTGTGTTGTATTTCTTCAGGTATTTTTCAATTGTT
TTTCTTTATTTTCTTCAGCATTTAATCACTGTATACTATGTAATTCCTGAAGGGGAAGAACTAATTAGGAGTTGA
TTGAGACTTTATTATGGTATAGTTAGGACTTGATTGTAGAAGGGACTAAATGTTCCAACATAATCTTTACCCTTC
TCCCCAAACAAAATATCAATTCTGTGTCTCTACATGCCTTTGATTCCCTTAGAGGTGCGGTAATTTAACATAAAACA
GGGATGTCACCTTTGAGGGGCAGATGAAAGTCTAGAGAACTGTTCCCTTAATAGCATTGTAAGGTTCCATTCCAAC
TGCCAGTGTAGATTTTAAAAGTGTTAAATAGTGACTCCCTTGATTAACTGTTTGTAATTATTTGAGTAGATTAA
TAATGAAAATACTTTGGAAATAATATACATTTTGACATTCTACCAAGAGGACAACCTTTGGTTCTGGAAGTGGTTT
CTATTTGTCAAATCAGTTTCCCTTTAACATAATTAATCCCTTTAACAAAAAGCCGTCTATGGGATTAAAAGACAC
GTGAAATGATACTTTTATTATCCCTTGCTCATATAACTTTAAAAATAATACTTTTAGCTCTAATAGCTCAAGAA
CACAATATTCGTTAATGTTTCAAGTAGCCTGAGACATTTTCAATGTTTCCCTTAAGGTTTTTGAATGACTGTA
TATTTGGCAGTTAAGCAGTGCCACACTACAGGGTAGATATGGTAAATTTTATATTTGTATATTTACAGTTACAAA
ACAAATGTACTTTTACCTTTTATTTCTGACCCTGTGTGTTAGAGCAGTTGCATGCTCTCCTGCTGTTAAAAACAC
ATTGTTAAGCTGTGGATTTGTACTCAATAATGACTTAGGATAAACATTTATTTTCAATCATTGCTTTACATACTA
GACATTTTTCTTCTTTTGTAAAGTAGATTCAAATTAGATAGTCAATAAAACATCTTGAAAATCCCACAAGCC

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FIGURE 5055

ACCGCGTGTTTCGCGCCTGGTAGAGATTTCTCGAAGACACCAAGTGGGCCCGTTCCGAGCCCTCTGGACCGCCCGTG
TGGAACCAAACCTGCGCGCGTGGCCGGGCGTGGGACAACGAGGCCGCGGAGACGAAGGCGCAATGGCGAGGAAG
TTATCTGTAATCTTGATCCTGACCTTTGCCCTCTCTGTACAAATCCCTTCATGAATAAAAGCAGCTGCTTTC
CCCCAGACCACTGAGAAAATTAGTCCGAATTGGGAATCTGGCATTAAATGTTGACTTGGCAATTTCCACACGGCAA
TATCATCTACAACAGCTTTTCTACCGCTATGGAGAAAATAATTCTTTGTGAGTTGAAGGGTTTCAGAAAATTACTT
CAAAATATAGGCATAGATAAGATTAAAAGAATCCATATACACCATGACCACGACCATCACTCAGACCACGAGCAT
CACTCAGACCATGAGCGTCACTCAGACCATGAGCATCACTCAGAGCACGAGCATCACTCTGACCATGATCATCAC
TCTCACCATAATCATGCTGCTTCTGGTAAAAATAAGCGAAAAGCTCTTTGCCAGACCATGACTCAGATAGTTCA
GGTAAAGATCCTAGAAACAGCCAGGGGAAAGGAGCTCACCGACCAGAACATGCCAGTGGTAGAAGGAATGTCAAG
GACAGTGTTAGTGTAGTGAAGTGACCTCAACTGTGTACAACACTGTCTCTGAAGGAACCTCACTTTCTAGAGACA
ATAGAGACTCCAAGACCTGAAAACCTCTTCCCCAAAGATGTAAGCAGCTCCACTCCACCCAGTGTCACATCAAAG
AGCCGGGTGAGCCGGCTGGCTGGTAGGAAAACAAATGAATCTGTGAGTGAGCCCCGAAAAGGCTTTATGTATTCC
AGAAACACAAATGAAAATCCTCAGGAGTGTTCAATGCATCAAAGCTACTGACATCTCATGGCATGGGCATCCAG
GTTCCGCTGAATGCAACAGAGTTCAACTATCTCTGTCCAGCCATCATCAACCAAATTGATGCTAGATCTTGTCTG
ATTCATACAAGTGAAAAGAAGGCTGAAATCCCTCCAAAGACCTATTTCATTACAAATAGCCTGGGTTGGTGGTTTT
ATAGCCATTTCCATCATCAGTTTCTGTCTCTGCTGGGGGTTATCTTAGTGCTCTCATGAATCGGGTGTTTTTC
AAATTTCTCCTGAGTTTCTTGTGGCACTGGCCGTTGGGACTTTGAGTGGTGATGCTTTTTTACACCTTCTTCCA
CATTCTCATGCAAGTCACCACCATAGTCATAGCCATGAAGAACCAGCAATGGAAATGAAAAGAGGACCACTTTTC
AGTCATCTGTCTTCTCAAAACATAGAAGAAAGTGCCATTTTTGATTCCACGTGGAAGGGTCTAACAGCTCTAGGA
GGCCTGTATTTTATGTTTTCTTGTGTAACATGTCCTCACATTGATCAAACAATTTAAAGATAAGAAGAAAAAGAAT
CAGAAGAAACCTGAAAATGATGATGATGTGGAGATTAAGAAGCAGTTGTCCAAGTATGAATCTCAACTTTCAACA
AATGAGGAGAAAGTAGATACAGATGATCGAACTGAAGGCTATTTACGAGCAGACTCACAAGAGCCCTCCCACTTT
GATTCTCAGCAGCCTGCAGTCTTGGGAAGAAGAAGAGGTGATGATAGCTCATGCTCATCCACAGGAAGTCTACAAT
GAATATGTACCCAGAGGGTGCAAGAATAAATGCCATTACATTTCCACGATACACTCGGCCAGTCAGACGATCTC
ATTCACCACCATCATGACTACCATCATATTCTCCATCATCACCACCACCAAAACCACCATCCTCACAGTCACAGC
CAGCGCTACTCTCGGGAGGAGCTGAAAGATGCCGGCGTCGCCACTCTGGCCTGGATGGTGATAATGGGTGATGGC
CTGCACAATTTACGCGATGGCCTAGCAATTGGTGCTGCTTTTACTGAAGGCTTATCAAGTGTTTAAAGTACTTCT
GTTGCTGTGTTCTGTATGAGTTGCCCTCATGAATTAGGTGACTTTGCTGTTCTACTAAAGGCTGGCATGACCGTT
AAGCAGGCTGTCTTTTATAATGCATTGTGAGCCATGCTGGCGTATCTTGGAAATGGCAACAGGAATTTTATTGGT
CATTATGCTGAAAATGTTTCTATGTGGATATTTGCACCTACTGCTGGCTTATTCATGTATGTTGCTCTGGTTGAT
ATGGTACCTGAAATGCTGCACAATGATGCTAGTGACCATGGATGTAGCCGCTGGGGGTATTCTTTTTTACAGAAT
GCTGGGATGCTTTTGGGTTTTGGAATTATGTTACTTATTTCCATATTTGAACATAAAATCGTGTTTCGTATAAAT
TTCTAGTTAAAGGTTTTAAATGCTAGAGTAGCTTAAAAAGTTGTCATAGTTTCAGTAGGTCAATAGGAGATGAGTTT
GTATGCTGTACTATGCAGCGTTTTAAAGTTAGTGGGTTTTGTGATTTTTGTATTGAATATTGCTGTCTGTTACAAA
GTCAGTTAAAGGTACGTTTTAATATTTAAGTTATTTCTATCTTGGAGATAAAATCTGTATGTGCAATTCACCGGTA
TTACCAGTTTATTATGTAAACAAGAGATTTGGCATGACATGTTCTGTATGTTTCAGGGAAAAATGCTTTAATGC
TTTTTCAAGAACTAACACAGTTATTCTTACTGGAATTTTAGGTCTCTGAAGAACTGCTGGTG

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FIGURE 5056

AGTTGGCGACATGGTGGCACCCGCTGCTGGAGACTTCTCACGTGTTTTGCTGCCCAAACCGGGTGCGGGGAGTCCT
GAACTGGAGCTCTGGGCCCAGAGGACTTCTGGCCTTTGGCACGTCCTGCTCCGTGGTGCTCTATGACCCCTGAA
AAGGGTTGTTGTTACCAACTTGAATGGTCACACCGCCGAGTCAATTGCATACAGTGGAATTTGTAACAGGATGG
CTCCCTTCTACTGAATTAGTTTCTGGAGGATCTGATAATCAAGTGATTCACTGGGAAATAGAGGATAATCAGCT
TTTAAAAGCAGTGCATCTTCAAGGCCATGAAGGACCTGTTTATGCGGTGCATGCTGTTTACCAGAGGAGGACATC
AGATCCTGCATTATGTACACTGATCGTTTCTGCAGCTGCAGATTCTGCTGTTTCGACTCTGGTCTAAAAAGGGTCC
AGAAGTAATGTGCCCTTCAGACTTTAACTTTGGAAATGGATTGCTTTGGCTCTCTGCTTATCTTTTTTGCCAAA
TACTGATGTACCAATATTAGCATGTGGCAATGATGATTGCAGAATTCACATATTTGCTCAACAAAATGATCAGTT
TCAGAAAGTGCTTTCTCTCTGTGGACATGAGGATTGGATTAGAGGAGTGGAATGGGCAGCCTTTGGTAGAGATCT
TTTCCTAGCAAGCTGTTTACAAGATTGCCTGATAAGAATATGGAAGCTGTATATAAAGTCAACATCTTTAGAAAC
TCAGGATGACGATAACATAAGACTGAAAGAAAATACTTTTACCATAGAAAATGAAAGTGTTAAATAGCATTTC
TGTTACTCTGGAGACAGTGCTAGCCGGTCATGAAAACCTGGGTAAATGCAGTTTCACTGGCAACCTGTGTTTTACAA
AGATGGTGTCCTACAGCAGCCAGTGAGATTATTATCTGCTTCCATGGATAAAACCATGATTCTCTGGGCTCCAGA
TGAAGAGTCAGGAGTTTGGCTAGAACAGGTTTCGAGTAGGTGAAGTAGGTGGGAATACTTTGGGATTTTATGATTG
CCAGTTCAATGAAGATGGCTCCATGATCATTGCTCATGCTTTCCACGGAGCGTTGCACCTTTGGAAACAGAATAC
AGTTAACCCAGAGAGTGGACTCCAGAGATTGTCAATTCAGGACACTTTGATGGTGTTCCAGACCTAGTCTGGGA
TCCAGAAGGAGAATTTATTATCACTGTTGGTACTGATCAGACAACTAGACTTTTTGCTCCATGGAAGAGAAAAGA
CCAATCACAGGTGACTTGGCATGAAATTGCAAGGCCTCAGATACATGGGTATGACCTGAAATGTTTGGCAATGAT
TAATCGGTTTCAGTTTGTATCTGGAGCAGATGAAAAAGTTCTTCGGGTTTTTTCTGCACCTCGGAATTTTGTGGA
AAATTTTTGTGCCATTACAGGACAATCACTGAATCATGTGCTCTGTAATCAAGATAGTGATCTTCAGAAGGAGC
CACTGTCCCTGCATTGGGATTATCAAATAAAGCTGTCTTTCAGGGAGATATAGCTTCTCAGCCTTCTGATGAAGA
GGAGCTGTTAACTAGTACTGGTTTTGAGTATCAGCAGGTGGCCTTTCAGCCCTCCATACTTACTGAGCCTCCCAC
TGAGGATCATCTTCTGCAGAATACTTTGTGGCCTGAAGTTCAAAAACCTATATGGGCACGGTTATGAAATATTTG
TGTTACTTGTAACAGTTCAAAGACTCTGCTTGCCTCAGCTTGTAAGGCAGCTAAGAAAGAGCATGCAGCTATCAT
TCTTTGGAACACTACATCTTGGAACAGGTGCAGAATTTAGTTTTCCACAGTTTGACAGTCACGCAGATGGCCTT
CTCACCTAATGAGAAGTTCTTACTAGCTGTTTCCAGAGATCGAACCTGGTCATTGTGGAAAAAGCAGGATACAAT
CTCACCTGAGTTCGAGCCAGTTTTTAGTCTTTTTGCCTTCACCAACAAAATTACTTCTGTGCACAGTAGAATTAT
TTGGTCTTGTGATTGGAGTCTTGACAGCAAGTATTCTTCACTGGGAGTCGAGACAAAAGGTGGTTGTCTGGGG
TGAGTGGGACTCCACTGATGACTGTATTGAGCACAACATTGGCCCCCTGCTCCTCAGTCCTGGACGTGGGTGGGGC
TGTGACAGCTGTCAGCGTCTGCCAGTGCTCCACCCTTCTCAACGATACGTGGTTGCAGTAGGATTGGAGTGTGG
AAAGATTTGCTTATATACCTGGAAAAAGACTGATCAAGTTCCAGAAATAAATGACTGGACCCACTGTGTAGAAAC
AAGTCAAAGCCAAAGTCATACACTGGCTATCAGAAAATTATGCTGGAAGAATTGCAGTGGA AAAA ACTGAACAGAA
GGAAGCAGAAGGTGCTGAGTGTTACACTTTGCAAGCTGTGGTGAAGATCACACTGTGAAGATACACAGAGTCAA
TAAATGTGCACGTTAATGG

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FIGURE 5057

MVAPVLETSHVFCCPNRVRGVLNWSSGPRGLLAFGTSCSVVLYDPLKRVVVTNLNGHTARVNCIQWICKQDGSPS
TELVSGGSDNQVIHWEIEDNQLLKAVHLQGHEGPVYAVHAVYQRRTS DPALCTLIVSAAADSAVRLWSKKGPEVM
CLQTLNFGNGFALALCLSLPNTDVPILACGNDDCRIHIFAQQNDQFQKVLSLCGHEDWIRGVEWAAFGRLFLA
SCSQDCLIRIWKLYIKSTSLETQDDDNIRLKENTFTIENESVKIAFAVTLETVLAGHENWVNAVHWQPVFYKDG
LQQPVRLLSASMDKTMILWAPDEESGVWLEQVRVGEVGGNTLGFYDCQFNEDGSMIIAHAFHGALHLWKQNTVNP
REWTPEIVISGHFDGVQDLVWDFEGEFIITVGTDTTRLFAPWKRKQSQVTWHEIARPQIHGYDLKCLAMINRF
QFVSGADEKVLRVFSAPRNFVENFCAITGQSLNHVLCNQDSDLPEGATVPALGLSNKAVFQGDIA SQPSDEEELL
TSTGFEYQQVAFQPSILTEPPTEDHLLQNTLWPEVQKLYGHGYEIFCVTCNSSKTL LASACKAAKKEHAAIILWN
TTSWKQVQNLVHSLTQTMAFSPNEKFL LAVSRDRTWSLWKKQDTISPEFEPVFSLFAFTNKITSVHSRIIWSC
DWSPDSKYFFTGSRDKKVVWGECDSTDDCIEHNIGPCSSVLDVGGAVTAVSVCPVLHPSQRYVVAVGLECGKIC
LYTWKKTDQVPEINDWTHCVETSQSQSHTLAIRKLCWKNC SGKTEQKEAEGAEWLHFASCGEDHTVKIHRVNKCA
L

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FIGURE 5058

CTCTCCTCCCGCCGCCCAAGATGCCGAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCCGGCCCCCTGCTGTCTG
TGAAGAAGCAGGAGGCTAAGAAAGTGGTGAATCCCCTGCTTGAGAAAAGGCCTAAGAATTTTGGCATTGGACAGG
ACATCCAGCCCCAAAAGAGACCTCACCCGCTTTGTGAAATGGCCCCGCTATATCAGGTTGCAGCGGCAGAGAGCCA
TCCTCTATAAGCGGCTGAAAGTGCTCCTGCGATTAAACAGTTCACCCAGGCCCTGGACCGCCAAACAGCTACTC
AGCTGCTTAAGCTGGCCCCACAAATACAGACCAGAGACAAAGCAAGAGAAGAAGCAGAGACTGCTGGCCCCGGGAGG
AGAAGAAAGCTGCTGGCAAAGGGGACGTCCCCACGAAAAGACCACCTGTCCTTCGAGCAGGAGTTAATACCGTCA
CCACCTTGGTGGAGAACAAGAAAGCTCAGCTGGTGGTAATTGCACATGACGTGGATCCCATCGAGCTGGTTGTCT
TCTTGGCTGCCCTGTGTCTGTAATAATGGGGGTCCCTTACTGCATTATCAAGGGGAAGGCAAGACTGGGACGTCTAG
TCCACAGGAAGACCTGCACCACTGTGCGCTTCACACAGGTGAACTCGGAAGACAAAGGCACTTTGGCTAAGCTGA
TGGAAGCTATCAGGACCAATTACAATGACAGATACGATGAGATCCGCCGTCACTGGGGCGGCAACGTCTGGGTCT
CTAAGTCTGTGGCTCGTATCGCCAAGCTCGAAAAGGCAAAGGCTAAAGACCTTGCCACTAAACTGGGTTAAATGT
ACACTGTTGAGTTTTCTGTACATAAAAAATAATTAAATAATACAAATTTTCTTC

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FIGURE 5059

MPKGKKAKGKKVAPAPAVVKKQEAKKVVNPLLEKRPKNFGIGQDIQPKRDLTRFVKWPRYIRLQRQRAILYKRLK
VPPAINQFTQALDRQTATQLLKLAKYRPETKQEKQRLAREEKAAGKGDVPTKRPPVLRAGVNTVTTLVENK
KAQLVVIAHDVDP IELVVFLAALCRKMGVPYCI IKGKARLGRLVHRKTCTTVAFTQVNSEDKGTLAKLMEAIRTN
YNDRYDEIRRHWGGNVLGPKSVARIAKLEKAKAKDLATKLG

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FIGURE 5060

GGCACGAGGGCGGGGCGCATCTCCCGCTAGGAGTTCCTAGTAAAGTGGCGGGAGCCGCAGCTATGGAGCCGCAGG
AGGAGAGAGAAACGCAGGTTGCTGCGTGGTTAAAAAAATATTTGGAGATCATCCTATTCCACAGTATGAGGTGA
ACCCACGGACCACAGAGATTTTACATCACCTTTCAGAACGCAACAGGGTCCGGGACAGGGATGTCTACCTGGTAA
TAGAGGACTTGAAGCAGAAAGCAAGTGAATACGAGTCAGAAGCCAAGTATCTTCAAGACCTTCTCATGGAGAGTG
TGAATTTTTCCCCCGCCAATCTCTCTAGCACTGGTTCCAGGTATCTGAATGCTTTGGTTGACAGTGCGGTGGCCC
TTGAAACAAAGGATACCTCGCTAGCTAGTTTTATCCCTGCAGTGAATGATTTGACCTCTGATCTCTTTCGTACCA
AATCCAAAAGTGAAGAAATCAAGATTGAAGTGGAAAACTTGAAAAAATTTAACTGCAACTTTAGTATTAGAAA
AATGTCTACAAGAGGATGTCAAGAAAGCAGAGTTGCATCTGTCTACAGAAAGGGCCAAAGTTGATAATCGTCGTC
AGAACATGGACTTTCTAAAAGCAAAGTCAGAGGAATTCAGATTGGAATCAAGGCTGCAGAGGAGCAACTTTCAG
CCAGAGGCATGGATGCTTCTCTGTCTCATCAGTCCTTAGTAGCACTATCAGAGAACTGGCAAGATTAAAGCAAC
AGACTATACCTTTGAAGAAAAAATTGGAGTCCTATTTAGACTTAATGCCGAATCCGTCTCTTGCTCAAGTAAAA
TTGAAGAAGCAAAGCGAGAAGTATAGCATTGAAGCTGAAGTTACAAGAAGAGTAGACATGATGGAAGTGTGAC
AAAAGCCAAATAAACATCCTTTTCCCTAACAAAGTAAATTGAATAGGACTTTACAGAGTTCTTTTTCTCTTGGC
ATTTCCCTAATAACAAAACCTTTCTGTGTTCTTAGATTACAGAATATCATAATTGATAGAATATGGTTTCTTACTGT
GTGTTGCATTTTTGTGCCCAAATACATAGTTTTCATATTAAAAAGCCTTTTCTCTTAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 5061

MEPQEERETQVAAWLKKIFGDHPIPQYEVNPRTEILHHLSENRVRDRDVYLVIEDLKQKASEYESEAKYLQDL
LMESVNFSPANLSSSTGSRYLNALVDSAVALETKDTSASFIPAVNDLTSDLFRTKSKSEEIKIELEKLEKNLTAT
LVLEKCLQEDVKKAEHLSTERAKVDNRRQNMDFLKAKSEEFRTGKAAEEQLSARGMDASLSHQSLVALSEKLA
RLKQQTIPLKKKLESYLDLMPNP SLAQVKIEEAKRELDSEAELTRRVDMMEL

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FIGURE 5062

GTCCAGTCAGTCCGGAGGCTGCGGCTGCAGAAGTACCGCCTGCGGAGTAACTGCAAAGATGCTGTCCGTGCGCG
TTGCTGCGGCCGTGGTCCGCGCCCTTCCTCGGCGGGCCGGACTGGTCTCCAGAAATGCTTTGGGTTTCATCTTTCA
TTGCTGCAAGGAACCTCCATGCCTCTAACACTCATCTTCAAAGACTGGGACTGCTGAGATGTCCTCTATTCTTG
AAGAGCGTATTCTTGGAGCTGATACCTCTGTTGATCTTGAAGAACTGGGCGTGTCTTAAGTATTGGTGATGGTA
TTGCCCGCGTACATGGGCTGAGGAATGTTCAAGCAGAAGAAATGGTAGAGTTTTCTTCAGGCTTAAAGGGTATGT
CCTTGAACCTTGGAACTGACAATGTTGGTGTGTCGTGTTTGGAAATGATAAACTAATTAAGGAAGGAGATATAG
TGAAGAGGACAGGAGCCATTGTGGACGTTCCAGTTGGTGAGGAGCTGTTGGGTCGTGTAGTTGATGCCCTTGGTA
ATGCTATTGATGGAAAGGGTCCAATTGGTTCCAAGACGCGTAGGCGAGTTGGTCTGAAAGCCCCCGGTATCATTC
CTCGAATTTAGTGCGGGAACCAATGCAGACTGGCATTAAAGGCTGTGGATAGCTTGGTGCCAATTGGTCGTGGTC
AGCGTGAACCTGATTATTGGTGACCGACAGACTGGGAAAACCTCAATTGCTATTGACACAATCATTAAACCAGAAAC
GTTTCAATGATGGATCTGATGAAAAGAAGAAGCTGTACTGTATTTATGTTGCTATTGGTCAAAAGAGATCCACTG
TTGCCCAGTTGGTGAAGAGACTTACAGATGCAGATGCCATGAAGTACACCATTGTGGTGTGCGCTACGGCCTCGG
ATGCTGCCCCACTTCAGTACCTGGCTCCTTACTCTGGCTGTTCCATGGGAGAGTATTTTAGAGACAATGGCAAAC
ATGCTTTGATCATCTATGACGACTTATCCAAACAGGCTGTTGCTTACCGTCAGATGTCTCTGTTGCTCCGCCGAC
CCCCTGGTCGTGAGGCCATCCTGGTGATGTGTTCTACCTACACTCCCGGTTGCTGGAGAGAGCAGCCAAAATGA
ACGATGCTTTTGGTGGTGGCTCCTTGACTGCTTTGCCAGTCATAGAAACACAGGCTGGTGATGTGTCTGCTTACA
TTCCAACAAATGTCATTTCCATCACTGACGGACAGATCTTCTTGAAACAGAATTGTTCTACAAAGGTATCCGCC
CTGCAATTAACGTTGGTCTGTCTGTATCTCGTGTGCGGATCCGCTGCCCAAACAGGGCTATGAAGCAGGTAGCAG
GTACCATGAAGCTGGAATTGGCTCAGTATCGTGAGGTTGCTGCTTTTGCCAGTTCGGTTCTGACCTCGATGCTG
CCACTCAACAACCTTTTGAGTCGTGGCGTGCGTCTAACTGAGTTGCTGAAGCAAGGACAGTATTCTCCCATGGCTA
TTGAAGAACAAGTGGCTGTTATCTATGCGGGGTGAAGGGGATATCTTGATAAACTGGAGCCCAGCAAGATTACAA
AGTTTGAGAATGCTTTCTGTCTCATGTCGTCAGCCAGCACCAGCCTTGTGGGCACTATCAGGGCTGATGGAA
AGATCTCAGAACAATCAGATGCAAAGCTGAAAGAGATTGTAACAAATTTCTTGGCTGGATTGAAGCTTAACTC
CTGTGGATTACATCAAATACCAGTTCAGTTTTGTCATTGTTCTAGTAAATTAGTTCCATTGTAAAAGGGTTAC
TCTCATACTCCTTATGTACAGAAATCACATGAAAAATAAAGGTCCATAATGC

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FIGURE 5063

MLSVRVAAAVVRALPRRAGLVSRNALGSSFIAARNFHASNTHLQKTGTAEEMSSILEERILGADTSVDLEETGRVL
SIGDGIARVHGLRNVQAEEMVEFSSGLKGMSLNLEPDNVGVVVFNDKLIKEGDIVKRTGAIVDVPVGEELLGRV
VDALGNAIDGKGPIGSKTRRRVGLKAPGIIPRISVREPMQTGIKAVDSLVP IGRGQRELIIGDRQTGKTSIAIDT
IINQKRFNDGSDEKKKLYCIYVAIGQKRSTVAQLVKRLTDADAMKYTIVVSATASDAAPLQYLAPYSGCSMGEYF
RDNGKHALIIYDDLKQAVAYRQMSLLRRPPGREAYPGDV FYLHSRLLERA AKMND AFGGSLTALPVIETQAG
DVSAYIPTNVISITDGQIFLETIFYKGIRPAINVGLSVSRVGSAAQTRAMKQVAGTMKLELAQYREVA AFAQFG
SDLDAATQQLLSRGVRLTELLKQGQYSPMAIEEQVAVIYAGVRGYLDKLEPSKITKFENAFLSHVVSQHALLGT
IRADGKISEQSDAKLKEIVTNFLAGFEA

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FIGURE 5064

CCATGGACTTTATCAACGACGCCACCGACGTCAACGATGCCCTGGGCTATGTGACCCGCTTCTACCGCGAGGCCT
CGTCCGGCGCTGCCAAGAAGAGGCTGCTGCTCTTCTCAGATGGCAACTCGCAGGGCGCCACGCCCCTGCCATCG
AGAAGGCCGTGCAGGAAGCCCAGCGGGCAGGCATCGAGATCTTCGTGGTGGTCGTGGGCGCCAGGTGAATGAGC
CCCACATCCGCGTCTTGGTCACCGGCAAGACGGCCGAGTACGACGTGGCCTACGGCGAGAGCCACCTGTTCCGTG
TCCCCAGCTACCAGGCCCTGCTCCGCGGTGTCTTCCACCAGACAGTCTCCAGGAAGGTGGCGCTGGGCTAGCCCA
CCCTGCACGCCGGCACCAAACCCTGTCCTCCCACCCCTCCCCACTCATCACTAAACAGAGTAAAATGTGATGCGA
ATTTTCCCGACCAACCTGATTCGCTAGATTTTTTTTCCTTCTGTGTTTTTTTCTGAACCATATCCATGTTGCTGAC
TTTTCAAATAAAGTTTTTCACTCCTC

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FIGURE 5065

CTCAGCCCCAGCTCCAACAGAAGCAGCCCGGCCACCCACTCCCCGTGACCGCCACGCCACATGGACACAGCCCT
CGCCCTCCGCCCCGGCTTTTCTCTGCCTTTCTACCGACCATGTGACCCCGCACCAGCCCTGCCCCACCTGCCCT
CCCGGGCAGTACTGGGGACCTTCCCTGGGGGACGGGGAGGGAGGAGGCAGCGACTCCTTGGACAGAGGCCTGGGC
CCTCAGTGGACTGCCTGCTCCACAGCCTGGGCTGACGTGAGAGGCCGAGGCCAGGAAGTGAAGTGGGCCCCCTGG
TCCTGGGTCTCAGGATGGGTCTGGGGGCTCGTGTTCATCAAGACACCCCTCTGCCCAGCTCACCACATCTTCA
TCACCAGCAAACGCCAGGACTTGGCTCCCCATCCTCAGAACTCACAAGCCATTGCTCCCCAGCTGGGGAACCTC
AACCTCCCCCCTGCCCTCGGTGGTGACAGAGGGGGTGGGACAGGGGCGGGGGGTCCCCCTGTACATACCCTGCC
ATACCAACCCAGGTATTAATTCTCGCTGGTTTTGTTTTTATTTTAATTTTTTTGTTTTGATTTTTTTAATAAGA
ATTTTCATTTTAAGCACATTTATACTGAAGGAATTTGTGCTGTGTATTGGGGGGAGCTGGATCCAGAGCTGGAGG
GGGTGGGTCCGGGGGAGGGAGTGGCTCGGAAGGGGCCCCCACTCTCCTTTTCATGTCCCTGTGCCCCCAGTTCTC
CTCCTCAGCCTTTTCCTCCTCAGTTTTCTCTTTAAACTGTGAAGTACTAACTTTCCAAGGCCTGCCTTCCCCTC
CCTCCCACTGGAGAAAGCCGCCAGCCCTTTCTCCCTCTGCCTGACCACTGGGTGTGGACGGTGTGGGGCAGCCCT
GAAAGGACAGGCTCCTGGCCTTGGCACTTGCTGCACCCACCATGAGGCATGGAGCAGGGCATAGCAAGGGCCCC
GGGACAGAGTTTTCCCAGACCTGGCTCCTCGGCAGAGCTGCCTCCCGTCAGGGGCCACATCATCTAGGCTCCCCA
GCCCCCACTGTGAAGGGGCTGGCCAGGGGCCCCGAGCTGCCCCCACCCTGGCCTCAGCCACCAGCACCCCCATAG
GGCCCCCAGACACCACACACATGCGCGTGCGCACACACACAAACACACACACACTGGACAGTAGATGGGCCGACA
CACACTTGGCCCGAGTTCTTCCATTTCCCTGGCXTGGCCCCCACCCTAAGCTGTCCCACCCCGTGCCCCCTC
CTTACCCCGCAGGACGGGCCTACAGGGGG

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FIGURE 5066

AGGTTTCGATACAAGAGGCTGTTTTCTAGCGTGGCTTGCTGCCTTTGGTAAGAACATGTCGTCCATCTTGCCATT
CACGCCGCCAGTTGTGAAGAGACTGCTGGGATGGAAGAAGTCAGCTGGTGGGTCTGGAGGAGCAGGCGGAGGAGA
GCAGAATGGGCAGGAAGAAAAAGTGGTGTGAGAAAGCAGTGAAAAGTCTGGTGAAGAAGCTAAAGAAAAACAGGACG
ATTAGATGAGCTTGAGAAAGCCATCACCCTCAAACTGTAATACTAAATGTGTTACCATACCAAGCACTTGCTC
TGAAATTTGGGGACTGAGTACACCAAATACGATAGATCAGTGGGATACAACAGGCCTTTACAGCTTCTCTGAACA
AACCAGGTCTCTTGATGGTCTCTCCAGGTATCCCATCGAAAAGGATTGCCACATGTTATATATTGCCGATTATG
GCGCTGGCCTGATCTTCACAGTCATCATGAAGTCAAGGCAATTGAAAAGTGCATATGCTTTTAACTCTTAAAAA
GGATGAAGTATGTGTAAACCTTACCCTATCAGAGAGTTGAGACACCAGTTTGGCTCCAGTATTAGTGCCCCG
ACACACCGAGATCCTAACAGAACTTCCGCCTCTGGATGACTATACTCACTCCATTCCAGAAAACACTAACTTCCC
AGCAGGAATTGAGCCACAGAGTAATTATATTCCAGAAACGCCACCTCCTGGATATATCAGTGAAGATGGAGAAAC
AAGTGACCAACAGTTGAATCAAAGTATGGACACAGGCTCTCCAGCAGAACTATCTCCTACTACTCTTTCCCCTGT
TAATCATAGCTTGGATTTACAGCCAGTTACTTACTCAGAACCTGCATTTTGGTGTTCGATAGCATATTATGAATT
AAATCAGAGGGTTGGAGAAACCTTCCATGCATCACAGCCCTCACTCACTGTAGATGGCTTTACAGACCCATCAAA
TTCAGAGAGGTTCTGCTTAGGTTTACTCTCCAATGTTAACCAGAAATGCCACGGTAGAAATGACAAAGAGGCATAT
AGGAAGAGGAGTGCGCTTATACTACXATAGGTGGGGAAGTTTTTGGCTGAGTGCCTAAGTGATAGTGCAATCTTTG
TGCAGAGCCCCAATTGTAATCAGAGATATGGCTGGCACCCTGCAACAGTGTGTAAAATTCCACCAGGCTGTAATC
TGAAGATCTTCAACAACCAGGAATTTGCTGCTCTTCTGGCTCAGTCTGTTAATCAGGGTTTTGAAGCCGTCTATC
AGCTAACTAGAATGTGCACCATAAGAATGAGTTTTGTGAAAGGGTGGGAGCAGAATACCGAAGGCAGACGGTAA
CAAGTACTCCTTGCTGGATTGAACCTCATCTGAATGGACCTCTACAGTGGTTGGACAAAGTATTAATCAGATGG
GATCCCCCTTCAGTGCCTTGCTCAAGCATGTCTAAAGCTTCACCAATCAAGTCCCATGAAAAGACTTAATGTAAC
AACTCTTCTGTCTATAGCATTGTGTGTGGTCCCTATGGACTGTTTACTATCCAAAAGTTCAAGAGAGAAAACAGCA
CTTGAGGTCTCATCAATTAAAGCACCTTGTGGAATCTGTTTCCCTATATTTGAATATTAGATGGGAAAATTAGTGT
CTAGAAATACTCTCCATTAAAGAGGAAGAGAAGATTTTAAAGACTTAATGATGTCTTATTGGGCATAAACTGA
GTGTCCCAAAGGTTTTATTAATAACAGTAGTAGTTATGTGTACAGGTAATGTATCATGATCCAGTATCACAGTATT
GTGCTGTTTATATACATTTTTAGTTTTGCATAGATGAGGTGTGTGTGTGCGCTGCTTCTTGATCTAGGCAAACCTT
TATAAAGTTGCAGTACCTAACTGTATTCCCACTTCTCTGTTATTTTTGTGTGTCTTTTTTAAATATATAATATA
TATCAAGATTTTCAAATTATTTAGAAGCAGATTTTCTGTAGAAAACTAATTTTTCTGCCTTTTACCAAAAATA
AACTCTTGGGG

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FIGURE 5067

TCCTCTTTCCCTAAGCAGCCTGAGGGTTGACTGGATTGGTGAGGCCCGTGTGGCTACTTCTGTGGAAGCAGTGCT
GTAGTTACTGGAAGATAAAAGGGAAAGCAAGCCCTTGGTGGGGGAAAGTATGGCTGCGATGATGGCATTTCCTAG
GACACCTTTGGATTAATAATGAAAACAACACTACTCTCTGAGCAGCTGTTTCAATCATCTGATATTTATACTGAATG
AGTTACTGTAAGTACGTATTGACAGAATTACACTGTACTTTCTCTAGGTGATCTGTGAAAATGGTTTCGCTATTTC
ACTTGACCCGGAGAACCCACGAAATCATGCAAATCAAGAGGTTCCAATCTTCGTGTTCACTTTAAGAACAACACTCG
TGAAACTGCTCAGGCCATCAAGGGTATGCATATACGAAAAGCCACGAAGTATCTGAAAGATGTCACCTTTACAGAA
ACAGTGTGTACCATTTCCGACGTTACAATGGTGGAGTTGGCAGGTGTGCGCAGGCCAAGCAATGGGGCTGGACACA
AGGTCGGTGGCCCAAAAAGAGTGCTGAATTTTTGCTGCACATGCTTAAAAACGCAGAGAGTAATGCTGAACTTAA
GGGTTTAGATGTAGATTCTCTGGTCATTGAGCATATCCAAGTGAACAAAGCACCTAAGATGCGCCGCCGGACCTA
CAGAGCTCATGGTCGGATTAACCCATACATGAGCTCTCCCTGCCACATTGAGATGATCCTTACGGAAAAGGAACA
GATTGTTCTTAAACCAGAAGAGGAGGTTGCCCAGAAGAAAAAGATATCCCAGAAAGAACTGAAGAAACAAAAACT
TATGGCACGGGAGTAAATTTCAGCATTAAATAAATGTAATTAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5068

MVRYSLDPENPTKCKSRGSNLRVHFKNTRETAQAIGMHIRKATKYLKDVTLQKQCVPFRRYNGGVGRCAQAKQ
WGWTQGRWPKKSAEFLHMLKNAESNAELKGLDVDSLVEHIQVNKAPKMRRRTYRAHGRINPYMSSPCHIEMIL
TEKEQIVPKPEEEVAQKKKISQKKLKKQKLMARE

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FIGURE 5069

GCTGAGCATCGCCAGGGCGGGCGGCAGGGCGCGGCCTCTCCGCCGGGTGTACCTCCTGTGCGGGCGCGAGACCTC
TGGTGAAAGAAAAGATGTTGTCCCGGTTAAGAGTAGTTTCCACCACCTTGTACTTTGGCATGTCGACATTGACACA
TAAAAGAAAAAGGCAAGCCACTTATGCTGAACCCAAGAACAACAAGGGAATGGCATTCTTACATTAAGAAGACGAC
AAATGCTTGGTCTTCAAGGACTTCTACCTCCCAAAATAGAGACACAAGATATTCAAGCCTTACGATTTCATAGAA
ACTTGAAGAAAATGACTAGCCCTTTGGAAAAATATATCTACATAATGGGAATACAAGAAAGAAATGAGAAATTGT
TTTATAGAATACTGCAAGATGACATTGAGAGTTTTAATGCCAATTGTATATACACCGACGGTTGGTCTTGCCCTGCT
CCCAGTATGGACACATCTTTAGAAGACCTAAGGGATTATTTATTTTCGATCTCAGACAGAGGTCATGTTAGATCAA
TTGTGGATAACTGGCCAGAAAATCATGTTAAGGCTGTTGTAGTGACTGATGGAGAGAGAATTCTGGGTCTTGAGAG
ATCTGGGTGTCTATGGAATGGGAATTCAGTAGGAAAACCTTTGTTTGTATACAGCTTGTGCAGGAATACGGCCTG
ATAGATGCCTGCCAGTGTGTATTGATGTGGGAACCTGATAATATCGCACTCTTAAAAGACCCATTTTACATGGGCT
TGTACCAGAAACGAGATCGCACACAACAGTATGATGACCTGATTGATGAGTTTATGAAAGCTATTACTGACAGAT
ATGGCCGGAACACACTCATTTCAGTTCGAAGACTTTGGAAATCATAATGCATTTCAGGTTCTTGAGAAAGTACCGAG
AAAAATATTGTACTTTCAATGATGATATTCAAGGGACAGCTGCAGTAGCTCTAGCAGGTCTTCTTGACAGCAGAAA
AAGTTATTAGTAAACCAATCTCCGAACACAAAATCTTATTCCTTGGAGCAGGAGAGGGCTGCTCTTGGAATTGCAA
ATCTTATAGTTATGTCTATGGTAGAAAATGGCCTGTGAGAACAGAGGCACAAAAGAAAATCTGGATGTTTGACA
AGTATGGTTTTATTAGTTAAGGGACGGAAAGCAAAAATAGATAGTTATCAGGAACCATTTACTCACTCAGCCCCAG
AGAGCATACCTGATACTTTTGAAGATGCAGTGAATATACTGAAGCCTTCACTATTATTGGAGTTGCAGGTGCTG
GCCGTCTTTTCACTCCTGATGTAATCAGAGCCATGGCCTCTATCAATGAAAGGCCTGTAATATTTGCATTAAAGTA
ATCCTACAGCACAGGCAGAGTGCACGGCTGAAGAAGCATATACACTTACAGAGGGCAGGTGTTTGTGTTGCCAGTG
GCAGTCCATTTGGGCCAGTGAACCTTACAGATGGGCGAGTCTTTACACCAGGTCAAGGAAACAATGTTTATATTT
TTCCAGGTGTGGCTTTAGCTGTTATTCTCTGTAAACACCCGGCATATTAGTGACAGTGTTTTCTAGAAAGCTGCAA
AGGCCCTGACAAGCCAATTGACAGATGAAGAGCTAGCCCAAGGGAGACTTTACCCACCGCTTGCTAATATTCAGG
AAGTTTCTATTAAACATTGCTATTAAAGTTACAGAATACCTATATGCTAATAAAATGGCTTTCCGATACCCAGAAC
CTGAAGACAAGGCCAAATATGTTAAAGAAAGAACATGGCGGAGTGAATATGATTCCCTGCTGCCAGATGTGTATG
AATGGCCAGAATCTGCATCAAGCCCTCCTGTGATAACAGAAATAGAGCACTCCCTGATAAATACTTTCTGTGCT
CCAGGGAACCCCTTTTTTTCAGACAAGAAGAGATAATGTCTTCAGTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5070

MLSRLRVVSTTCTLACRHLHIKEKGKPLMLNPRTNKGMAFTLQERQMLGLQGLLPKTIETQDIQALRFHRNLKKM
TSPLEKYIYIMGIQERNEKLFYRILQDDIESLMPIVYTPTVGLACSQYGHIFRRPKGLFISISDRGHVRSIVDNW
PENHVKA VVVTDGERILGLGDLGVYGMGIPVGKLCLYTACAGIRPDRCLPVCIDVGTDNIALLKDPFYMGLYQKR
DRTQQYDDLIDEFMKAITDRYGRNTLIQFEDFGNHNAFRFLRKYREKYCTFNDDIQGTA AVALAGLLAAQKVISK
PISEHKILFLGAGEAALGIANLIVMSMVENGLSEQEAQKKIWMFDKYGLLVKGRKAKIDSYQEPFTHSAPESIPD
TFEDAVNILKPSTIIGVAGAGRLFTP DVIRAMASINERPVIFALS NPTAQAECTAE EAYTLTEGRCLFASGSPFG
PVKLTIDGRVFTPGQGNNVYIFPGVALAVILCNTRHISDSVFLEAAKALTSQLTDEELAQGRLYPPLANIQEV SIN
IAIKVTEYLYANKMAFRYPEPEDKAKYVKERTWRSEYDSL LPDVYEWPE SASSPPVITE

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FIGURE 5071

GCTAGGGCGCGGCGGGCGGTTTGAATTTTGCTTACAGAGTCCCGTCTCACCATCCTGGGCTTCCAACGGAGACTG
CGGTATCCGCAGCTGGAGACCCAGCGGCGAGTAGCCTTTTGCTCCCGGACGGACTTGAGGTTGGAGTCTGTGTGT
TGGGGACCCTGCCTTTGGAAGCGCCGAGAGGCTTAAAGGATGGCCTCGTCAGATCTGGAACAATTATGCTCTCA
TGTTAATGAAAAGATTGGCAATATTAAGAAAACCTTATCATTAAAGAACTGTGGCCAGGAACCTACCTTGAAAAC
TGATTAAATAAAATAGGAGATGAGATCATTGTAATAATGAACCTTCTAAATAAATTGGAATTGGAATTTCAGTA
TCAAGAACAACCAACAATTCACCTCAAGGAACCTCTGTGAATCTCTTGAAGAAGATTACAAAGACATAGAACATCT
TAAAGAAAACGTTCCCTTCCCATTTGCCTCAAGTAACAGTAACCCAGAGCTGTGTTAAGGGATCAGATCTTGATCC
TGAAGAACCAATCAAAGTTGAAGAACCTGAACCCGTAAAGAAGCCTCCCAAAGAGCAAAGAAGTATTAAGGAAAT
GCCATTTATAACTTGTGATGAGTTCAATGGTGTTCCTTCGTACATGAAATCCCGCTTAACCTATAATCAAATTAA
TGATGTTATTAAAGAAATCAACAAGGCAGTAATTAGTAAATATAAAATCCTACATCAGCCAAAAAGTCTATGAA
TTCTGTGACCAGAAATCTCTATCACAGATTTATTGATGAAGAAACGAAGGATACCAAAGGTCGTTATTTTATAGT
GGAAGCTGACATAAAGGAGTTCACTACTTTGAAAGCTGACAAGAAGTTTCACGTGTTACTGAATATTTTACGACA
CTGCCGGAGGCTATCAGAGGTCGAGGGGGAGGACTTACTCGTTATGTTATAACCTGAGTCCCTTGTGAACTTTT
GAACATACCAACAGGGTATAGAGTATAGAGGCTATTTCTATAATTTTCTTATATATAATTTTTTTAACTTTTAAAT
CTTTTTTGTTCCTTTTTTTTTTTTTTTTGTAGACAGGATCTTGCTTTGTACCCAGGGGCTTGCTTTGTACGCAGG
CTAGAGTGCAGTGGCGCAAACATGGCTCACTGCAGCCTCAACCTCCCAGGCTCAAGTGATCCTCCACCTCAGCC
CCCTGAATGGCTGGGACTACAAGCGTGCGCCACCATGCCTGGCTAATTTTTTGATTTTTTGGAGAGATGGGGTTT
CACCATGTTGCCTAGGCTGGTCTTGAGCTCCTGAGCTCAAACAATCCACCCTCCTCAGCCTCCCAAAGTGCTGGG
ATTACAGGCTTGAGCCACCACACCTGACCTATTCTTGTTTCTTATAAAAAATAAACTTTTTTGGATAAAGCTTAT
TTCTTGTTTTTTCTTTTTCTTTTTTTTTTTTTTTTGTAGACAGTCTCGCTCTTTTACCCAGGCCGGACTGCAGCGG
CGCTATCTCGGCTCACTGCAAACTCTGCCTCCCAGGTTACAGCCATCCTCCTGCCTCAGCTACTCAGGAGAATTG
CTTGAACCTAGGAGGTGGAGGTTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGTCTGGGCAACAGAGCGAGA
CTCCATCTCAGAAAAAAGAAAAAAGACTGGGTACAGATGTGATATTGGAAGAAAAAGATCAAGCTGATGAGGT
TAGGATACCCAGGCCCTTTGGACTTAAAGATCACTAGTGTCTAAATTCATCGATGGCATTTCAGTCTATAGGTA
AACTTCTTGGAAGCTGGATTTGGAGACAGTTTATCATCTGATTATTGGGCTTTTCGTATAGGTCCTTAGGGAGCAG
CTTACCTGAAATGCATTTAGTGTACACCAGTCTGTAACTTCAACCTGTAATGAAAGTGAATAAATGTACATTG
AGTTGATGTGATAATGTGATATAATAAGAAATATATATTTGATCTTCTATCTAGTTCTTTGTTTACAGAGCTCCTA
AAACCTTGTAATTTCCAAAGTGATGGAGTACATCTTTTGTCTAGTATTTGGTCTTTGACCCAGTTCTTGACA
CAAAGCTCCTAAATTCCTTTAAATTTCCAGTGATAGGAGAATTTTTTGTCTAATGAGGTCACTCTTGATGGGQ
ACCTGGATAACTCAGGATGGGGGCTGCTCACAAGACCACATCATGATTGGAAGTTTCAAACCTTCAGTCTCCCA
CCTCCAGAGAGGGGAGAGGGGCTGGAGATTTGTGTCAATAATCCATCAGGCCTATGTCAACAAGACATAATCCGT
TAACTATGGAGTTCAGGGAGCTTCAGGGTTGGCAAACATTTTGATGTGCCAGGAAGGTGACGCACTCCAGCTTTA
TGAAGTCAGCAAGTCCTGTGCTCAGGATGCTTCTGGACCTTGCCCCAGGTACCCCTTCATGTGGCTGTTGTTTAT
CTGTATCCTTTGTAGTAGCCTTAAAAATAAACTGTTAAACAC

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FIGURE 5072

CCGACATGTTGAGTCATAAGACGCGTCGGTGTTCAGTCTGTGTCTTGGAGGTGACCAGGGCCACTGCAGGCAT
GGTGTCTAGCAGAGCTGTACGTCTCTGACCGAGAGGGAAGCGATGCCACGGGAGATGGAACCAAGGAGAAACCATT
TAAAACAGGTCTAAAGGCTTTGATGACAGTAGGGAAAGAACCATTTCCTACCATTTACGTAGATTACAAAAAGA
AAATGAGAGGTGGAATGTTATTTCTAAATCACAGTTGAAGAACATTAAAAAGATGTGGCATAGGGAACAAATGAA
GAGTGAATCCCGGGAAAAGAAAGAGGCAGAAGATAGTTTACGAAGAGAAAAGAACCTGGAAGAAGCAAGAAGAT
TACCATTAAAAATGATCCAAGTCTCCAGAGCCAAAATGTGTGAAGATTGGTGCGTTAGAAGGATATAGAGGCCA
AAGAGTAAAGGTGTTTGGCTGGGTCCACAGGCTGCGCAGGCAAGGAAAGAATTTAATGTTTCTGGTGTTGCGAGA
TGGTACAGGTTATCTTCAGTGTGTCTTGGCGGATGAGTTGTGTCTAGTGCTACAATGGAGTTCTCTTGTCCACGGA
GAGCAGTGTTCAGTGTATGGAATGCTAAATCTTACCCCAAAGGGCAAGCAGGCTCCAGGTGGCCATGAGCTGAG
TTGTGACTTCTGGGAACATAATTGGGTGGCCCTGCTGGAGGAGCTGACAACCTGATCAATGAGGAGTCTGACGT
TGATGTCCAGCTCAACAACAGACACATGATGATCCGAGGAGAAAACATGTCCAAAATCCTAAAAGCACGATCCAT
GGTCACCAGGTGCTTTAGAGATCACTTCTTTGATAGGGGGTACTATGAAGTTACTCCTCCAACATTAGTGCAAAC
ACAAGTAGAAGGTGGTGCCACACTCTTCAAGCTTGACTATTTTGGGGAAGAGGCATTTTGGACTCAATCCTCTCA
GTTGTACTTGGAGACCTGCCTCCAGCCCTGGGAGATGTTTTTGTATTGCTCAGTCATACCGGGCAGAGCAGTC
CAGAACACGAAGGCACCTGGCTGAGTACACTCACGTGGAAGCTGAGTGTCTTTCTGACTTTTGACGACCTCCT
GAACCGGTTGGAGGACTTGGTTTGTGATGTGGTAGATCGAATATTGAAGTCACCTGCAGGGAGCATAGTGATGA
GCTCAACCCGAACCTTCAGCCCCCAACGGCCCTTCAAACGGATGAACATTTCAGATGCTATCGTTTGGCTAAA
AGAACATGATGTAAAGAAAGAAGATGGAACCTTCTATGAATTTGGAGAAGATATCCCAGAAGCTCCTGAGAGACT
GATGACAGACACCATTAAATGAACCAATCTTGCTGTGTCTGATTTCCTGTGGAGATCAAGTCCTTCTACATGCAGCG
ATGTCCTGAGGATTCCTGCTTACTGAATCTGTCTGACGTGTTGATGCCCAATGTTGGTGAGATTGTGGGAGGCTC
AATGCGTATCTTTGATAGTGAAGAAATACTGGCAGGTTATAAAAGGGGAAGGGATTGACCCCACTCCCTATTACTG
GTATACGGATCAGAGAAAATACGGTACATGTCCCATGGAGGATATGGCTTGGGCTTGGAACGATTCTTAACGTG
GATTCTGAATAGGTATCACATCCGAGACGTGTGCTTATACCCTCGATTTGTCCAGCGTTGCACGCCATTAACCAATT
TTCTCCAGAAGCGTGGAGGAAAGATTATGAAAGGAACAGGCTCTTTAAAAAAGAAAACAAAAGCCAGAATCTTC
CTTTTTTTTGTTCATTGGGGTTTCTCTTTCTGTTTTTCTTTCTACTACCATAAAAACTATCTCAAATCACCTGA
ACATCAAGTGATATTAAGGTTGTCATCTTAAGAAAAAATATCCATTTTTTCTTAAGTTCGGGAAACAAAGTTCG
GGGAAAATACCTGGCATGAACTGTAGTTAGGGATACATTTACGATTTTACTCACTTTATCCAAGTTATTCAATT
TTATTCAAGTTATATGTATGTATAATTCAACAATTTTAGATTATGGTGTAAAGATACTCCAGTAACCTATCTTTCT
GTCCTTTTAAAGTGTACCTGGAATTCTTTGATTTATTTTATTGCATCAATGAATTAACAAAAAATCTTGGGGGAA
GAAATTGGCAATATCGTATAAAAATCTGCTCATATTAGAACACAGTATAATTACAGCAGTAACACTAGAATCAAA
TGAATAGCCTTTTGTATCAGTTATTAATCTTTTCTAACTCTGCTTAGCTGCTAATAATCCTGAGGCATAGAAATT
GAAGAATTTGTAAAAATAGAATTGCCTTAAAGGATTTGAAGTAAGAACATAATTTGGGGAGAGTTTTTTAGTGA
TTCACAGTATCCCTCTTAGCATTAATTTAAGGTAAAGAGGCAGATTGATTTCCCTCTTTCCCTGGTAATTCCTAA
GTAATTAAGAATAAATAAGTTCCAAAAGAAATTGTAGCTGGAATCTTAATAACAATTGTGAGTGGCTGTTTGAAGT
TGCCCCACCATGTCCTTAGATCTAATCTGTGCTACCTTATTAACCTCACAGCAGGCTTACTGAATGGCTTCATTT
CAGATTTAGTTGATTTCTCCACCAATGCATGTCATGTATTCTCAATAGGCTGTATTCCCAGCAGTCAATAAATG
AACACCCGTAAAAA

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FIGURE 5073

MVLAELYVSDREGSDATGDGTKEKPFKTGLKALMTVGKEPFPTIYVDSQKENERWNVISKSQLKNIKMMWHREQM
KSESREKKEAEDSLRREKNLEEAKKITIKNDPSLPEPKCVKIGALEGYRGQRVKVFGWVHRLRRQGKNLMFLVLR
DGTGYLQCVLADELCQCYNGVLLSTESSVAVYGMLNLTPKGKQAPGGHELSCDFWELIGLAPAGGADNLINEESD
VDVQLNNRHMMIRGENMSKILKARSMVTRCFRDHFFDRGYEYVTPPTLVQTQVEGGATLFLKLDYFGEEAFLTQSS
QLYLETCPLALGDVFCIAQSYRAEQSRTRRHLEAYTHVEAECPFLLTFDDLLNRLEDLVCDVVDRIKSPAGSIVH
ELNPNFQPPKRPFKRMNYSDAIVWLKEHDVKKEDGTFYEFGEDIPAPERLMTDTINEPILLCRFPVEIKSFYMQ
RCPEDSRLTESVDVLMPNVGEIVGGSMRIFDSEEILAGYKREGIDPTPYWYTDQRKYGTCPHGGYGLGLERFLT
WILNRYHIRDVCLYPRFVQRCTP

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FIGURE 5074

CGGCCAGCGACGCGGTTACCTCCTGCTGTCTCGCCCTCGCCCCGGCGAGCTGCCCCCGACGCGAGATGTCTTA
TTTACCAACAAATCCACCAGGGAGCATTCTTATTTGCTGGCTCGGCGTCTCTCTCAGCAGTCACCGGAGTGCCGG
AGGGGGAAGCGCGATTTACGGAAGACTATTACCCAGAAGAAAAGATGTTTGTTCACAAGCCAAAGATGTACC
GAAGTATAGAGGGCTACTGTATTTGCAGAGCTAAGTCCTCCAGTTCTCGATTCACTGACAGTAAACGCTATGAAA
AGGACTTCCAGAGCTGTTTGGATTGCATGAGACTCGTTCAGGAGACATCTGCAATGCCTGTGTCTGCTTGTGAA
AAGATGGAAGAAGTTGCCAGCAGGATCAAAAAAAAAAACTGGAATCATGTGGTAGATGCAAGGGTTGGACCCAGT
CTAAAGACTACATTGAAACCAAAGAAAGTGAAGTCTATCTGGGAACAGGATAAAAAGCAACCAGATCAGTAAA
CTGCAGAAGGAATTTAAACGTCATAATCTGATGCTCACAATACCACCTCAAGTGCCTCCCCAGCTCCATCTCCT
CGTTACAGTAACCAGTCAGATGACGGCTCAGATACAGAGATGGCTTCTGGTTCTAACAGAACACCAGTTTTTTTCC
TTTTTAGATCTCACATACTGGAAGACAGAGATAATGTTGTGGGATCAACTATAAAGGCCGTTTTTGGGGAAGTC
CTCATTGACACACATCCCTTCAAGCCTTGCTGCAGCAATAAGAAAGCAGCTGCCGAGAAAGCCAGAGGAGCAGGGG
CCAGAGCCTCTGCCATCTCCACTCAGGAGTGGTGACTGAGGTTTTTATGTAGAAGGGGAACAAAAAAATCTGA
ATTTTGAAGACCACAAAGCAGCAAACTGACCCCTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTAGACGGAGTTT
TGCTCTTGTACCAGGCAGGAGTGCAGTGGCGTGATCTTGGCTCACTGCAACTTCCGTCTCCCGGGTTCAAGTG
ATTCTCCTGCCTTAGCCTCCCAAGTAGCTGGGTTTATATGTGCCCGCCACCAGACCCGGCTAATATTTTAGTTTT
AGTAGAGACGGGGTTTACCACATTGGCCAGGCTGGTCTCAAAATGACCCCTCTTATTTTAACTTGGATACCTGCT
ATTCTGCCAAAAGACAATTTCTACAGTAGTTTTGAATGGGTTGATATCCCTTAGTCCCAAACTCTGAAGCCAG
TGTCAGCTTACTAAAAAAGAGTGGTACATAATTTAAGATGCTGAGTATTTATAGGAAAGATGAATGCTGC
TGTAAGTACTCTTTAAGTCTTTTTTTTTTTTAAATCCCTTCTAATGAATGAACTAGGGGAATTTAGGGGACA
GAGATGGGATTTGTTGTATGATAAACTGTATGTAGTTTTAGTCTTTCTGTATTGAGATGCAGTGGTTGGGGCAT
TTTTAAGATGGCTGGCTACTTGTTCCTCATGATAATAAATTTGTCATAACTCAGTAACATGAACCTGCCCT
AGAGGTAGTTGTTAATGATTTTGAAATATTAAGGCTTGCCAAGCTTGTGATGATTCAAACCTGTACTACTGATT
ATTAAGCAGGACAGACTGAGCTTCTGTTGCAAATACCTTGAGGAGAAAGTAACTTCTAAATATACAGAGAGGT
AACTTGACTATATAGTTGCATCCTGTGCCCTCCCTTCATATTAATATTTGATAAAGATTTTAAATTTTGTA AAC
TTCTAAAGCAGAATCAAAGCTCCTCTTGGGGAAATGGCAAGTCTTAGGACAGGCGAGACCCTGTATGAATAGTA
CCAAAGCATTACCGCATGGTAGAGAACACACTCGATTAAAAATGTTAAGCTATCTGAAAAATAAAATGTACAAGT
CCTCAGGATGGCACAAAACAAAGGTTAATGCTTCTTGGGGCACATTTCTTAGAGGGCTTGCTGAGTGTGTAAATA
TAATCGACTTTTGTGTTGTCTGTGACTTCATTGAAAACTTTACAATTCAGTTTCAGCTCTGGATTACTTCAG
TTGACCTTTGTGAAGGTTTTATCTGTGTAGAATGGGTGTTGACTGTTTTAGCCTATTAAGTTTTATTTCT
TTCACCTCTGTATTAAGTAAACTTACTAAAAGAAAAGAGGTTTGTGTTACATTAAATGGTTTTGGTTTGGCT
TCTTTTAGTCAGGCTTTCTGAACATTGAGATATCCTGAACCTAGAGCTCTTCAATCCTAAGATTTTCATGAAAAG
CCTCTCACTTGAACCTAAACCAGAGTACTCTTACTGCCTCTTTCTAAATGTTTCAGGAAAAGCATCGCCAGTTCTG
GTCTTTTCAGAAATGAGGGAGAAACATTTGCCCTGCCTTGTAAATAACAAGACTCAGTGCTCATTTTTTAACTGCAT
TTTAAAAAATGGATAGTATAATAACAATAAGGAGTAAGCCACCTTTTATAGGCACCCTGTAGTTTTATAGTTCTT
AATCTAAACATTTTATATTTTCTTTTGGAAAAACCTACATGCTACAAGCCACCATATGCACAGACTATACA
GCGAGTTGAGTTGGCTTCTCCACAGTCTTTGAGGCGAATTACAAAAGTCCAGCCATTATCATCCTCCTGAGTTA
TTTTGAAATGATTTTTTTGTACATTTTGGCTGCAGTATGGTGGTAGAATATACTATAATATGGATCATCTCTAC
TTCTGTATTTATTTATTTATTACTAGACCTCAACCACAGTCTTCTTTTTCCCTTCCACCTCTCTTTGCCTGTAG
GATGTACTGTATGTAGTCATGCATTTGTATTAATATATTAGAAATCTACAGATCTGTTTTGTACTTTTTATACT
GTTGGATACTTATAATCAAACCTTTTACTAGGGTATTGAATAAATCTAGTCTTATTAGAAAATAAAAAAAGAA
AGAA

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FIGURE 5075

GCTGTCCTCGCCCTCGCCCCGGCGAGCTGCCCCGACGCGAGATGTCTTATTTACCAACAAATCCACCAGGGAGC
ATTCTTATTGCTGGCTCGGCGTCTCTCTCAGCAGTCACCGGAGTGCCGGAGGGGGAAGCGCGATTTACGGAAGA
CTATTACCCAGAAGAAAAGATGTTTGTTCACAAGCCAAAGATGTACCGAAGTATAGAGGGCTACTGTATTTG
CAGAGCTAAGTCCTCCAGTTCTCGATTCACTGACAGTAAACGCTATGAAAAGGACTTCCAGAGCTGTTTGGATTG
CATGAGACTCGTTCAGGAGACATCTGCAATGCCTGTGTCTGCTTGTGAAAAGATGGAAGAAGTTGCCAGCAGGA
TCAAAAAAAAAAACTGGAATCATGTGGTAGATGCAAGGGTTGGACCCAGTCTAAAGACTACATTGAAACCAAAGA
AAGTGAAAACCTCTATCTGGGAACAGGATAAAAAGCAACCAGATCAGTAAACTGCAGAAGGAATTTAAACGTCATA
ATTCTGATGCTCACAAATACCACCTCAAGTGCCTCCCCAGCTCCATCTCCTCGTTACAGTAACCAGTCAGATGACG
GCTCAGATACAGAGATGGCTTCTGGTTCTAACAGAACACCAGTTTTTTTCCTTTTTTAGATCTCACATACTGGCCTC
ATTGACACACATCCCTTCAAGCCTTGCTGCAGCAAT

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FIGURE 5076

ACTTCTGCCCTTTTGGCTCTCTGACCAGCACCATGGTGGTGGGCAAGAACAAGCACCTTACGAAAGGCGGCAAAA
AGGGAGCCAAGAAGAAAGTGGTTGATCCATTTTCTAAGAAAGATTGGTTTGACGCGAAAGCACCTACTACGTTCA
ATATAAGAAATATTGGAAGACGCTCATCACCAGGACCCAGGGGAACCAAAATTGCATCTGATGGTCTCAAGGGTC
GTGTGTTTGAAGTGAGTCTTGCTGATTTGCAGAATGATGAAGTTGCATTTAGAAAATTCAGCTGATTACTGAAGA
TGTTCAAGGGCAAAAACCTGCCTAACTTCCATGGCATGGATCTTACCCATGACAAAATGTGTTCCATGGTCAAAAAA
TGGCAGACAATGATTGAAGCTCATGTTGATGTCAAGACTACCGATGGTTACTTGCTTCGTCTTTTCTGTGTTGGT
TTTACTAAAAAACGCAGCAATCAGATACGGAAGACCTCTTATGCTCAGCAACAACAGGTCCGCCAAATCCGGAAG
AAGATGATGGAAATCATGACTCGAGAGGTGCAGACAAATGACGTGAAAGAAGTGGTCAATAAATTGATTCCAGAC
AGCATTGGAAGACATAGAAAAGACTTGCCAATCTATTTATCCTCTCTATGATGTCTTCGTTAGAAAAGTAAAA
ATGTTGAAGAAGCCCAAGTTTGAAGTGGGAAAGCTCATGGAGCTTCATGGTGAAGGCAGTAGTTCTGGAAAAGCT
GCTGGGGACGAGACAGGTGCTAAAGTTGAATGAGCTGATGGATATGAACCAACAGTCCAAGAATCTGTTTAAAGT
TCAGACTTCAAATAGTGGCAAATAAAAAGTGCTATTTGT

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FIGURE 5077

MDLTHDKMCSMVKKWQTMIEAHVDVKTTDGYLLRLFVGF TKKRSNQIRKTSYAQQQQVRQIRKKMMEIMTREVQ
TNDVKEVVNKLIPDSIGK DIEKTCQSIYPLYDVFVRKV KMLKKPKFELGKLMELHGE GSSSGKAAGDET GAKVE

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FIGURE 5078

ATGAAAGAGGCCATCGGATGCGAGGACATCAGCCCAGTAACTTTGAGGGAAGAAGGTTTTCTTCCCCTGCTGCC
TATGCCGTGGGGTTTGAGCACGTCTCTCGGGGGGAAGTCATGGCCCATAGCCAGCTTGCTGCAATGGAAGCGATG
CTTACAGTAAGGCGAGTTCCCTGGACACGATATATGAGAGTGAGGACACAGTGCCCAGAGTTGGGAGTTGACCGA
ACCTACCTTCAGATGGGATTTCTGCTTGAAAACCAGGAAGCAGAACTCAGATGTGAATTACGCTTTCTAGACATT
CAACTGCTATCAAAGAATAATTGCCATGCTAAATTATTTATATTTGTGGAGCAAATGACTTTAGGCACTAAGGCT
TTTATCTCTTCCCCTGAGGAACCTTTTGAACCTTTGTTTTCTTGAACCTCTATGCCATCCAGGCAGGGGGATTAGAA
GAACCTCCTAATCTGAGTAATTTGAATAAACTGAGGGAAATTGTGGAAAAGAAAGATTACAAGGTGATGAAAAAG
AGAGTAGATAATGAAGAGGGTGTA AAACTTATAAGGTACTGGAAAGGGCAGCCATGAAATTCCTGACCATGGAA
CCCAAAC TGAGAGATGACAGACTTGAAGGATATGGAGAAAAAGATTCAAGTTCTTGCGGAGAAGGTCATGTTCA
GAAGCAAGTAAGGTAGTGAGAGCGTACTTACAACCTATCGTGTGGAAGCTGCTCAGTGATGAGACTGGGAAAGAT
GAATATGCGTACGCTCTTTCACTCACAGCAAAATCACTAAGCTTCTCTGAGGGTATAGGATACTTTCTTTTCTAT
GGGTCAGTGATGGTCATTACTGGAAGTTCCCATCACTTCCCGGTCCATCTTCCTGTGCTGGAGAACAAACCTAAA
CACGAGGGTTGGGGAAACTTGA

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FIGURE 5079

MKEAIGCEDISPVTLREEGFPSPAAYAVGFEHVSRGEVMAHSQLAAMEAMLTVRRVPWTRYMRVRTQCPELGVDR
TYLQMGFLLLENQEAELRCELRFIDIQLLSKNNCHAKLFI FVEQMTLGTAFISSPEEPFELCFLELYAIQAGGLE
EPPNLSNLNKLREIVEKKDYKVMKKRVDNEEGVKTYKVLERAAMKFLTMEPKLRDORLEGYGEKDSSSWRRRSCS
EASKVVRAYLQLIVWKLLSDETGKDEYAYALSLTAKSLSFSEGIGYFLFYGSVMVITGSSHFPVHLPVLENKPK
HEGWGN

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FIGURE 5080

ATGGTCTATGGAATTAAAAAATATGGTCCCTTTGTTGCAGACTTTGCTGATAAACTCAATGAGCAAAACCTTGCC
CAACTAGAAGAGGCGAAGCAGGCTTCCATCCAACAAATCCAGAATGCAATTGATATGGAGAAGTCACAACAGGCA
CTGGTTTCAGAAGCGCCATTACCTTTTTGATGTGCAAAGGAATAACATTGCTATGGCTTTGGAAGTTACTTACCGG
GAACGACTGTATAGAGTATATAAGGAAGTAAAGAATCGCCTGGACTATCATATATCTGTGCAGAACATGATGTGT
TGA

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FIGURE 5081

MVYGIKKYGPFVADFADKLNEQNLAQLEEAQASIQQIQNAIDMEKSQQALVQKRHYLFDVQRNNIAMALEVTYR
ERLYRVYKEVKNRLDYHISVQNMMC

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FIGURE 5082

ACGTGGTACGGAACCGGCCGCGCTTGCTGCTGGTAACAGGGCCTTGCCTAGTGGGCCTTCCTTCCCAGGTTCGC
CCCTCAGTCTCCACTAGAGACAGGACTGACCAGTTGCTCTTCCTTCCAAGAACCTTCGAGATCTGCGGTCTGGGG
TCTGGTTGAAAGATGGCGGCCCTCACTACCCTGTTTAAGTACATAGATGAAAAATCAGGATCGCTACATTAAGAAA
CTCGCAAAATGGGTGGCTATCCAGAGTGTGTCTGCGTGGCCGGAGAGAGGGCGAAATCAGGAGGATGATGGAA
GTTGCTGCTGCAGATGTTAAGCAGTTGGGGGGCTCTGTGGAAC TGGTGGATATCGGAAAAACAAAGCTCCCTGAT
GGCTCGGAGATCCCGCTCCCTCCTATTCTGCTCGGCAGGCTGGGCTCCGACCCACAGAAGAAGACCGTGTGCATT
TACGGGCACCTGGATGTGCAGCCTGCAGCCCTGGAGGACGGCTGGGACAGCGAGCCCTTCACCCTGGTGGAGCGA
GACGGCAAGCTGTATGGGAGAGGTTGACTGATGATAAGGGCCCGGTGGCCGGCTGGATAAACGCCCTGGAAAGCG
TATCAGAAAACAGGCCAGGAGATTCTGTCAACGTCCGATTCTGCCTCGAAGGCATGGAGGAGTCAGGCTCTGAG
GGCCTAGACGAGCTGATTTTTGCCCGGAAAGACACATTCTTTAAGGATGTGGACTATGTCTGCATTTCTGACAAT
TACTGGCTGGGAAAGAAGAAGCCCTGCATCACCTACGGCCTCAGGGGCATTTGCTACTTTTTTCATCGAGGTGGAG
TGCAGCAACAAAGACCTCCATTCTGGGGTGTACGGGGGCTCGGTGCATGAGGCCATGACTGATCTCATTTTTGCTG
ATGGGCTCTTTGGTGGACAAGAGGGGGAACATCCTGATCCCCGGCATTAAACGAGGCCGTGGCCGCCGTACAGGAA
GAGGAGCACAAGCTGTACGACGACATCGACTTTGACATAGAGGAGTTTGCCAAGGATGTGGGGGCGCAGATCCTC
CTGCACAGCCACAAGAAAGACATCCTCATGCACCGATGGCGGTACCCGTCTCTGTCCCTCCATGGCATCGAAGGC
GCCTTCTCTGGGTCTGGGGCCAAGACCGTGATTCCCAGGAAGGTGGTTGGCAAGTTCTCCATCAGGCTCGTGCCG
AACATGACTCCTGAAGTCGTGCGCGAGCAGGTACAAAGCTACCTAACTAAGAGTTTGCTGAACTACGCAGCCCC
AATGAGTTCAAGGTGTACATGGGCCACGGTGGGAAGCCCTGGGTCTCCGACTTCAGTCACCCTCATTACCTGGCT
GGGAGAAGAGCCATGAAGACAGTTTTTGGTGTGAGCCAGACTTGACCAGGGAAGGGCGGAGTATCCCCTGACC
TTGACCTTTCAGGAGGCCACGGGCAAGAACGTATGCTGCTGCCTGTGGGGTCAGCGGATGACGGAGCCCACTCC
CAGAATGAAAAGCTCAACAGGTATAACTACATAGAGGGAACCAAGATGCTGGCCGCGTACCTGTATGAGGTCTCC
CAGCTGAAGGACTAGGCCAAGCCCTCTGTGTGCCATCTCCAATGAGAAGGAATCCTGCCCTCACCTCACCTTTTT
CCAAC TTGCCCAGGGAAGTGGAGGTTCCCTCTTTCCCTTTCCCTCTTGTGTCAGGTCATCCATGACTTTAGAGAACAG
ACACAAGTGTATCCAGCTGTCCACGGGTGGAGCTACCCGTTGGGCTTATGAGTGACCTGGAGTGACAGCTGAGTC
ACCTTGGGTAAGTTCTCAGAGTGGTCAGGATGGCTTGACCTGCAGAAGATACCCAAGGTCCAAAAGCACAAGGTG
TGCGGAAAGTTCTGGTTGTGCGCCGGGCACACGGCTCACACCTATAATCGAGCACTTTGGGAGGCCAAGACAGG
AGGATCACTTGAGGCCAGGAGTCTGAGACAAGCCTAGGCAACAAAACAAGACTCTGTCTCTACAAAAAGTTTAAG
AAATGAGCCAGACATGGTGGTGTATGCCTGTAGTCCCAGCCACTCAGAAGGCTGAGGCAGGAGGATCGCTTGAGA
CCAAGAGTTTTGAGCCTGCGGTGAGCTGTGAATGCACCACGGCACTCAAGCCTGGGCAATGTAGCAAGATCCTGTC
TCTACAAGAAATTTTTTAAAAATGAGCCAAGTGTGGTGGTGCATGCCTGTAGTTCCAGCTACTCAGGACACTGAC
GTAGGAGGGTTGCTTGAGACTGAGAGTTGGAGGCTGCGATGAGCCATGAATGCCCCACTGCACTCCAGCCTGGGC
GACAGAACGAGACCCCATCTCAAAAAAATAAGTTCTGGTTGTGATTGAATTGGGATAAACAGAGAGCTTGATGC
TTTCTGCCTTCTGTCTCAGGTGATGCATTGCACATTTGGGATATTTGGAAGGAAATGAGGAAAGAAATTAGGGC
CTCCTCTGATCTCTCGCTATCTGCGGGTCTGTCTTTTCTCAAGACCTTCACCATTACTGGCATTTCCTGTCT
TCTCTTTAGTATGATCCCTCAAAACCTCACTAACTGGAAGGATGATTTTGTCTCAGTTTGTACTCCTAAATAAAA
AGTAAACATGACACCTCT

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FIGURE 5083A

AATCTGAGAGAGGCCGAGTGGAGTTCCGGTCCTTCTCTGAACACTTTTATGCTGAGAGTACCAGCATCCAACCTGGGA
GCGTTGTCAATTGCATTTCCACATTCCCAGGAAAGCCCAGGTGCTGGCTGCCAGCTGCTGCGCCCCCATGTAGAA
GGTGCACCTCCTGGGAGCAGGCACGTCTTTTGGCTCTTCTGACCATGGAGAGATAGGACGGTCCCTGCAGCCCCG
GCGACAGAAAGCTGTGCCGCCACCACCGGCCGCGCCCGTCTTCGGATGGATCGCAACAGAGAGGCCGAGATGGA
GCTGAGGCGAGGCCCCAGCCCCACCAGGGCCGCGGGGCCACGAGGTGGATGGGGACAAGGCTACCTGCCACAC
CTGCTGCATCTGCGGCAAGAGCTTCCCTTCCAGAGCTCGCTTTCGACGACATGCGCAAGCACACGGGCGAGAA
GCCCTACAAGTGTCCCTACTGCGACCACCGGGCTTCCAGAAAGGGCAACCTGAAGATTACATCCGGAGCCACCG
CACGGGGACTCTGATTACAGGGACACGAGCCGGAGGCGGGCGAGGCGCCGCTGGGTGAGATGCGCGCCTCCGAGGG
CCTGGACGCTGCGCCAGCCCCACCAAGAGCGCTCGGCCTGCAACCGGCTGCTGAACGGGGCCTCGCAGGGCCGA
CGGCGCCAGGGTCTGAACGGGGCCTCGCAGGCCGACAGCGGCAGAGTCTGCTGCGGAGCAGCAAGAAGGGGGC
AGAGGGGTCCGCATGCGCCCCGGGGGAGGCCAAGGCAGCGGTCCAGTGCTCCTTCTGCAAGAGCCAGTTCGAGCG
TAAGAAGGACCTGGAGCTGCACGTGCACCAGGCGCACAGCCGTTCAAGTGCAGGCTGTGACGCTACGCGACGCT
GCGGGAGGAGTGCCTGCTGAGCCACATCGAGAGGGACCATACACCGCGCAGGGGCCCGGCAGCGGCGAGGCCTG
CGTGGAACGGCAAGCCCCAGCTGAGCCCCGGGGAGTTCCCGTGCGAGGTGTGTGGCCAGGCCTTCAGCCAGAC
CTGGTTCTGAAGGCGCACATGAAGAAGCACCGGGGCTCCTTCGACCACGGCTGCCACATCTGCGGCCGTAGGTT
CAAGGAGCCCTGGTTCTCAAGAACCACATGAAGGCGCACGGCCCCAAGACGGGCAGCAAGAACAGGCCCAAGAG
TGAGCTGGACCCCATCGCCACCATCAACAACGTGGTCCAGGAGGAGGTGATCGTCGCCGGCCTGAGCCTCTACGA
GGTCTGCGCCAAGTGCGGGAACCTGTTTACAAACCTGGACAGCTTGAACGCCCCACAATGCCATCCACCGCAGAGT
CGAGGCCAGCCGACGCGCGCCCCGGCCGAGGAGGGGGCGGAGGGGCCCTCGGACACCAAGCAGTTCTTCTCTCA
GTGCTGAACCTGAGGCCGTGCGCGGCCGGCGACTCGTGCCCTGGCAGCGAGCCGGACGGCGGGTGGCTGAGCT
GGACCCGGTCAACAGCTACCAGGCTTGGCAGCTGGCCACGCGGGTAAGGTGGCCGAGCCGGCCGAGTACCTCAA
GTACGGGGCCTGGGACGAGGCGCTGGCCGGGGACGTGGCCTTCGACAAGGACAGGCGCGAGTACGTCTTGGTGAG
CCAGGAGAAGCGCAAGCGTGAGCAGGATGCACCAGCCGCGCAGGGGCCCGCGGAAGCGCGCAGCGGGCCTGG
GGACCCGCGCGCCGCGGCCACCTCGATCCCGCTCGGCCGCGCGCCCCAACCGCAGGGCCGACGCCACACCGG
CCAGGGCAAGTCTCCGAGTGCTTCGAGTGCGGCAAGATCTTCGACCTATCATCAGATGGTGCTGCACTCACG
CTGCTATCGCCGCGCGCGCGGAGAGGACAGTGACGGGGACAGGGCGGCGCGGGCCCGCTGCGGATCACTCAG
TGAGGGTGACTCGGCTCCAGCCAGCAGCTGGCTGGCTCGGCTGTGCCGTGCTGACTCCCCGGGCTCTGGCCT
GGCCGACAGGCTGCCGAAGACAGTGGTGAGGAGGCGCCCTGAACCTGCACCAGGGGACAGCCGCGCCCTG
CTGCTTTTCCGAAGAGGTGACTTCGACCAGCTCTCCAGTGAGACCAGAGTCACAAGATGGGAGATAACGCCCTC
GGAAAGAGACACCGCGAGTCCAAGGCAGGGATCGCAGCTTCTGTGTCCATACTTGAAGACAGTAGCAGAGAGAC
TTCTAGAAGGCAAGAGCAGCACAGATTTCTATGGACTTAAAGATGCCAGCATTTACCCCCAAGCAGGAGGTGCC
CGTCCCTGGTGATGGTGTTGAGTTCCCTTXCCAGTACGGGAGCGGAGGGCCAGACGGGTACCCCTGCAGAAAAGC
TGTCGATTGTGACAACAAGGAACACTCTGGGGGAGGGAAGCGGGCGCTGGCCCCAGACCTCATGCCGCTAGATT
TAAGTGCAGAGTGCAGCGGGATGACCCAGCAATAAGGAGACGGCCTCCTCCCTGCAGGCGGCTTTAGTCGTTT
ACCCGTGTCCTTACTGCAGCCACAAGACCTACTACCCGAGGTCTGTGGATGCACAAACGCATCTGGCACCGCG
TCAGCTGCAACTCCGTGGCTCCCCGTGGATTACGCCAATGGTTACAAAAGCATCAGAAGCAATTTXGGTTTTTC
CTTTCCCGAGCGGACGACGGGCCCGCCGCTGCCCTCGGTGGCAAAGAAATGCCAGCCTTTGCTCCTTGCTCXG
GTTACCCGCACTCAGGTGCCAGGGGGATGCCGGGGTCCAAAAGTGGCTCTTCTCCCTGGGAGTGGTCAAAA
AGCCGCTAGCATGCCTAAGAATAAGGAGAGCCATTCCGGAGGTCCCTGCGCTCTGTGGGCGCCCGGCCCTGACGG
GTATCGACAGACCAACCTTGTACGGCCAGGAGCCACATGGCGCGGCCACACAGGGGCCCTGGCCAAGCCAG
GCAGGAGGCTAGCTCCAAACCGGTGCTGCCCCGCGTGGCGGGGGCTTACGAGGAGCGCCACCCCTACGCCCA
CCGTATCGCCCGGGCTGGCGCGCAGCCCTCGGCCAATAGCAAGCCTGTGGAGAAGTTTGGGGTCCCCCAGCGG
GGGCTGGCTTTGCCCCACAAATAAGCACAGTGCCCCGGACTCCCTGAAAGCCAAATTCAGTGCTCAGCCTCAGG
GTCCACCTCCTGCAAGGGGCGAAGGGGGCGCTCCTCCTTACCTCCCCGCGAGCCCCCTCGAAGGCAGCCAGG
AGCTGAGGACTCTGGCCACCTGTGCTGCGGGGTCCAGGGGCGACGCGCCTTGAGGGCCAGCCCGGCGTGGCTG
GGGCGCCCCCGCTCTACTCCATCAACAGGXAGCCGGTGGCCGAGGGCATGAGAAGCGCCTGGACATCCT
CAACAXTCTTTAAGACGTACATTXCAAAGGACTTTGCGACCTCTACCAGGGATGGGGTGTGAGCGGCCCTGGG
TTGGAGCACAGAGGGACACTCCGGACGCGAGGCCCGGCCAGGAGAGTTCGCTGCTGATCGAGTGGGAAAGAGCTTC

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FIGURE 5083B

CACCAGCCCGGCCACCTCAGGGCCACATGCGGGCACACTCAGTGGTGTGTTGAGTCCGATGGGCCTCGGGGTCT
GAAGTTCATACCACCTCCGCAGACGCCCCAAACAAGGGAGAGACCATTCTAACACAGGTACCGTCCAGACAGTG
CCTCTGAGAAAGGGAACCTAAAGGCGTGTTCGACGCACCCAGGTCCCCGTAACGGCCATTAGCAGTACCCCTC
ACGATGTCCCAGCAGCCTCCACCTGTGACCTGGCCGCTCCATGGAAGAACAGCCGGGGAACCTCCTGAGCAGACA
CCTCACATCCCGAGCCGCTGCGCTGGAGTGGAACCTGAAGGCAGATGCCCTCTCCTTGTTAAACGTTTCAGAAATAA
ATGAAGATGCTATATTCTAGAAATACATGTAGATACTATATACGCATTTACGTGCTCATCGTCCATAGTCCCAT
TTTTCTTATAATAAACAGTAGTACTGGCAGGCACAGTAGGGGCACAAGGCATCTGTCTTATTCAAGACAAGTTTG
AGACACTGGAAAAAAGATACTTGTGTGTGTGTGTGGACAGAGTGGCGAGGCTGAGCACTGTACAGGGGCTCC
CATGTTAAGAGGGGACTGTGGGGATGATGTCAGAACAAGACGTGGTGGATTTGAGGTTGATCGAGTATTAATACTA
CTGCCCTCTCCTTGTCTTAGTGGGTATTTAAATAGTAAATAAGAGAGAGGAAGGAGGTGACGTTTCAGGTGCTGTG
GGAAGCAGGCTTGGCGGAGGGGTATGATGATGAGACCCTCATTGTTCACTGGCTCCATCGCACTCCTCCCTGGGG
CCGTGTGCCTGTTCCATTCTTCCCACCATTCGAACCTGAGCGAATCTGGCAAAGGAGACACGTCTGTGGGAATGCG
TAGATTCCGCCTCGGAAGAGAGCTAGCGCAACACTAAGAAAAGCAGGCTTCTTGTATTATTCTCAGGACCTTTTTG
TAACAGGGCTACATTCTGCAAACTGCTTACAAAGGAAGACTATACGTCTTAACAAATTATTTAGCCACTGAGTCC
TCCCATTTCGACCTGTTTTAGTAATGGCAGAAGAATCCCTGAGCAGGTTTCAGGTGCCCTAGATGACTAGGGTGC
TGAGCTCTGGCGCCTTCTGTCCCACTCTTTCCTCCCGCCCTTCCCTGAGCCACCCAGCAAGTGGGTGTCT
TTTCTCCCTGGGCCTGGTGACCTCCACAGGATGAGTGACTTTGTTCATAAAGGGTGGGGATCACCAGCCCCCTGG
GTGGGGGACGGCTTCATATACCTCTTCTCAGTAATGCAAATGCGAGTTTTTGTGGTGGGGGTAAAGGCCATAA
CAAAGGATCTTAAACCATGCAGTGTACGCAATTGAAATGGTATTCACAGATATAAATATTTTCTTTTCCCATTG
CCGTGACACTATGTGTGATGGTAATATTTCTGAGAGTTTCAGATTTTTGCACATATGATTTTATGCATTATCAAA
AGTTACTGCTGCCTTGAATGAAAATGTTCTGTGAAATTTTTTGCAAAGCTTTACTAGGTTTTTTTTTAATTGTG
AAATTTTGTAAGGCAGGAAATGGATTAAAACGAGCATGCTAAATATATTTTTCAAAAAGCAATAATTTTACAT
GTACAGAAATTATCCTAACCTTTAATACTGGCGAGAGCAACAGTTTACTTAATACGGTAATGGACTAGTGCAGTT
TTTGTAGACAGTGGGCTTCTGATACAAAGTCTTGTTTAAACACAGACACACACACACACAAACACACACACAC
CCTAAAGTGTGGGTTTCTGTCTAATGATTTGTGTAATATTATTATATTATTATTATTATTATTATTATTG
TTATTGTTATTAGTAATGTTTGGTCTGGATTCTACTTGTACTGAGTTTAAATTACTTGACGGTTCAGGTACT
TTGCAACACTTTCAAACGATGCAATGTAAGTGGCTAGCTTATATATATATATATATATATATATATATATTTT
TTTTTTTTTTTACTTATTTTTTTCTGATATTCTTACACCAGATATGTACGAAAATGATCTGTCTGTGGTGTA
TTAGGAATGTCCATGCAGATACAGTTAAACAACGTGAATTGACTGTTCTGTAAAGTTATTTGGGCAAAGTTGCG
GAGACACATTCTCTGTCCACCTAAGAAATCAGAAGACTCTTCTGTTGATTTATGTTTAATCATTTAGTAGTTT
CCCCACAGTGATCATTTCTGCATTTTCTGGCTTTTGTCTTCTGGCTGAAAGTGAATGGTGACTGTTAGGAATGT
CAGGGACTAGTGACCCAGTCCTGTTTCTGTGTTTTAGTTATTAAAAAGAAATCTGTACCCAAAGTG

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FIGURE 5084A

AGACCATCCAAGAAGACAGTGCAGCCACCTCCGAGAGCCTGGATGTGATGGCGTCACAGAAGAGACCCTCCCAGA
GGCACGGATCCAAGTACCTGGCCACAGCAAGTACCATGGACCATGCCAGGCATGGCTTCCTCCCAAGGCACAGAG
ACACGGGCATCCTTGACTCCATCGGGCGCTTCTTTGGCGGTGACAGGGGTGCGCCCAAGCGGGGCTCTGGCAAGG
TGAGCTCTGAGGAGTAGAGGAGTTTTAGTTTAAATGGAAAAAGCAAAGGAGAAATCAGTAGGTGAACTCAGCCAT
TAGAGGAAGAAGTGGCACGTAGCCTCTTGCTGTCTAAGGTCTCGTTCCGTGCTGGAGAATGCATATGAGCCCAAG
AGTGTGGGCTGAGTGGCTGCTTAGGACGTTTTCGTTTAACTCACCCCTCTTTTCTCACAAGGGATGGTGGCC
GGGGTGTGGCTCAGGAATGTAAGGACATGCTGAATCTGGATCTCTAAGGGTGCCTGGACATGGGCGTTGCAGAA
AGAGAGCCACATTCTCAGGGTCTCTGGTGGTGTGTGCTTGGCGACTTGATGACTGATGTTGCCCTCTGCAGCCAC
ACGCTGGGGTTCAACACTGGGTTATGCTCGTTTTTCTGGAGTCAGTGTCTGCTAGCTTCATGTTGCTCTGCGAC
AATCATAGGATTGAGGTGAGGAAGACTTTTGAACAACTCCTCAATTTAAATCCGCCTTGAGCAAACGTTCTCT
GTGGTCTGAGAAGTGAAGGGGGGAGGGATAAATGAGTGTCTATGAATCAAAGCTTTATTATCTTGTGATTCCAT
TAATTTGCATACAGAGTCTTAGAAGTTTTCTTTATTCAAAAGCAAATGTGGATAAAAAATGATTACAAAAA
AACTCTGCTATGGGGTCCAGAGTCTAGGAGTGGTTTTCTGCAGTTGATTGTCAGTGGAGAACCTGTGGCTGCTGGT
TCATCAAAGCGCTGGTCCCTGAGTGCCATTGAGATTGCAGATGCAGTATTTACGTGATGTTTAGAGTGTGGT
GGTTGTGTAATTTTGGAGAGAAAGAAGTTTTCCCAAAAAGTCCCTAGTTTATTGGGTGTTCTCACACAACCTG
TAAGATGAAGCTGTTTTTCTGCCTGTGTGCAGGGCTGATTCTGGAATTCAGAAAGGCTTGTGGGAGCGTAAAG
GCTTTTGAATAAAGTGTGAACAGAGCGCCTCATTCTGATAACATGCAATCATAAAAAACCATAGGGCAACTTGA
GTTAAGGAGTTTTCTAGAATTTGCTTTAGTCTCCAACGCAATCTTTATTGATCATGAAATGTTGAAGAGAAAC
ACAAATGTGAGTTTTACCTTTCTGTGGGCGTGAAAGCACATCGAAGTTTCAGGCAACTGTTAACATCTCTACCA
TCTGTCTGAGTTGAGATTTAGGTTGTGACACTTGGCGTGACTTATTGTAAATGACATTTGTGTGCTTAGAT
ACTAATGGAATTCATATTCTGGCTAGTTCTTTCAGTGCATTTGTAGACATGTTCTTTTCTTTGTAGCAGTCTC
CCTCACCTGAAATGTTGGTGTCTAACCAGTTTCTAATGCTAATTTCACTGGAAGCACTTTTCAAGCCAGC
TATCAAACCACACCAGACATGTATGGATTGGGTGCCCCAATAAAGCGTTGCTATTATGTAAGCATCCCTCACGC
ATACAGCATCACCAGTTTTGAAAGCTTGAACATTTCTGCTTACTTCAAGGTACAGAAAAAATGTACTTAA
CTGTGCAGAAAAGATGAAATCACTGGATAATATGTATTATAAAATAAGCTTCATGTGAGTGACACTGGTTAAGT
TGAAATAAAATGGTGAAGCATTGATATCAATCATTGTGACTTTATCTCAAAACAATATTGACACACATAGATGT
TTTTCTTCTTTATGGTAAGATTACAGCCTTTATTGTCTTAAATCTCTTATACTCTTCAATATTTTCAAAGAAA
CATTCTAGTCTCAGAAATAGTCCATCTCTTTGCAAAACAGGGCTGGCCAATTATCAAGGACCCATAAAAAATCAA
ACACTTTCAAAAATTTTAAAAATAAAATAATTTTACATGATTGCTTTAGGAATTTGAAGTATCCATTCTTT
CACTATGGAGTGTGAAATATAGAAGATTTTTAATGAACAGGCTTGCCCTTTGATGCCAAAGGCAAAATAATA
ATAATAACATTTGCACGTGTGATCACAGAGCAGTGTGAGGCATCCCGGGGGAGCGCACGCAGTGGGGATGTGAT
TGCTCCACTCAACTATTTTATCACAAAGTGTGTAACATGGGAGATGAAAGCTTAACTCTCTCTACACCCAGCT
ACAGACCGCAATGGCCCTAAAAATCTGGGGTATTCTATGGGTGGGCTGCCATGGAGGAATTTTTGGTTTTGTTT
TTATTTTTATTTGTTGTTCTGTTTACAAATCAGGAGAGCCCTGTTTTTATATGCTAGGAAGGTCCTTGGGATAG
GCCGAAGAGGTGTGCAACGAGCAGTGAAGGCCCGGGCCCTGTCTCTCAGGACCACGGCGGCCCTGCCCCACACA
CAGTTCTGCTTCTCCCTATCTAGAACGAGGTTTTCTGGCAGATTCTGCCAGACTCTGAGTGGAGCCCCCAT
GACCCTATAAAAGGGGCTGTTTGTCTCTCTCCACCTCTCTGTGCTCTTCTCTCCCTCCCTTGAGGGCACATGGC
CGCTGGTACCACATGTTGGAGCGGCCGCCCGGAGCCCGGGAATGCCCTAACAAACACCCATGCTTGTGTTGCTGG
GAGCTGACATTCAAGAAAAGTGCATTAAAAATTCCTTGAGAAGGCATATTCTTTTGAGAGCCGTAAATGAAAAGT
GCATTACGGAGAACATGCTCCTTTGTTGTGAGAGGAAAGAAAGGACTGTTGTTGCCTTTAAGGAACAGGTTTCC
CAGTTCCCCGGAATGTGAGGTCACATGAGGAATGGGTGAGCACTTAGGGCCAAGATTGTCGTGTGCTTGGCCCG
GCAGCTTCTCTAAGTGACCTCTCCAGCATCACTCTGTGCCAGTGCTCATATCTGAGGCCACTTGAGTGTACG
AGGCAGAGCCTGGAACATTAGCTTTGGAACCGTTCCTTCTTTTTATGTGGAGGAAGTAAGGTTTCAACAAGAC
ACCTAAGCTGGACATGGTGTGTCACCTTGGATAGTTCCCAAAGCAGAAAGCAGCCAGGACATCCAGTACCCC
ACTTCTCCGTGCCGTGTACTTTTAGGGAGGTTTTCGAAAGCTAGCTTCTTACCGATGATTTTGTCTATTTTCTG
TTTTATGTGAAAACCTTCATTTATAACCTGCTCTTCTCAGTGTCTTCTATTTCAGCATTAGTATGACTTCTATG
CCTCTAATTGCGACTGTATGGAGAAGAACTGTTTGTCAATTCAGTGCCGTGGGATATAATCAGTCTGTAAATTCA
TCAGAAATGTTCTGTGCTGATTTTTTTTTCCATTGCATTTTAATTTCAATTAACATATTTTAGTTCTACAGTAAC

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FIGURE 5084B

CTAATTCCTCATTGTTACCATGAGATCCTAATTCTGTAGCTGTGTTCTGTAATCCCATGGGGCATGTACCATTG
GAGACACATGAAGGATACAGTAGACAGCACGGAAGGCAGCAGCAACACACAGGGGTGTCCTCCCTCCCCAGAGCC
CAGTGTGCACACAGAACCAAATTCAATCTCATTTCATCGTGAGCTTGTCATGGTAACTGATCCAGCCACTCAGTACC
TCCATTGGATAAGAGATTTGGCCACAGATTCTTCTAGAGAAAATCCAAATGTGGAGGGTGCATTTGTTTCTGCAC
CCAAACAAATACCTTTTGAGATTTCTTATAGGCATTCTCTCGAAGTCTCATTACTCTGATCAGTTATTGATCGG
AGGCTACCCTGGCTCAGTCACCAGCTGCTCACTGTGCTCTTCTGTGGTCTCAGGAGCTGCAGTTGTTGCTGTTGT
ATGAATAGACGATAGTTAATTAGACTGGATGTGTCTGTACTGGCAGTGATTTTGCAACTTCCTCTGTATAAGCGA
TACATTTGTAAATCATGGGAATGTATTTGATGGTAATTGCCTGTGGTGGTTGTATCATGATTTAATTTTATTATG
AGCTTTTGGCTTTATATATTTTTCTGCCTTTTTATGCATTCAATTAACAGTTTAACAGAC

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FIGURE 5085

MGNHAGKRELNAEKASTNSETNRGESEKKRNLGELSRTTSEDNEVFGEADANQNNGTSSQDTAVTDSKRTADPKN
AWQDAHPADPGSRPHLIRLFSRDAPGEGGQHLQRQAL

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FIGURE 5086

CCTGGATGTGATGGCGTCACAGAAGAGACCCTCCCAGAGGCACGGATCCAAGTACCTGGCCACAGCAAGTACCAT
GGACCATGCCAGGCATGGCTTCCTCCCAAGGCACAGAGACACGGGATCCTTGACTCCATCGGGCGCTTCTTTGG
CGGTGACAGGGGTGCGCCCAAGCGGGGCTCTGGCAAGGTACCCTGGCTAAAGCCGGGCGGAGCCCTCTGCCCTC
TCATGCCCCGAGCCAGCCTGGGCTGTGCAACATGTACAAGGACTCACACCACCCGGCAAGAACTGCTCACTACGG
CTCCCTGCCCCAGAAGTCACACGGCCGGACCCAAGATGAAAACCCCGTAGTCCACTTCTTCAAGAACATTGTGAC
GCCTCGCACACCACCCCGTCGCAGGGAAAGGGGGCCGAAGGCCAGAGACCAGGATTTGGCTACGGAGGCAGAGC
GTCCGACTATAAATCGGCTCACAAGGGATTCAAGGGAGTCGATGCCAGGGCACGCTTTCCAAAATTTTTAAGCT
GGGAGGAAGAGATAGTCGCTCTGGATCACCCATGGCTAGACGCTGAAAACCCACCTGGTTCCGGAATCCTGTCTCT
CAGCTTCTTAATATAACTGCCTTAAAACCTTTAATCCCACTTGCCCCCTGTTACCTAATTAGAGCAGATGACCCCTC
CCCTAATGCCTGCGGAGTTGTGCACGTAGTAGGGTCAGGCCACGGCAGCCTACCGGCAATTTCCGGCCAACAGTT
AAATGAGAACATGAAAACAGAAAACGGTTAAAACCTGTCCCTTTCTGTGTGAAGATCACGTTCCCTTCCCCCGCAAT
GTGCCCCCAGACGCACGTGGGTCTTCAGGGGGCCAGGTGCACAGACGTCCCTCCACGTTACCCCTCCACCCTTG
GACTTTCTTTTCGCCGTGGCTGCGGCACCCTTGCGCTTTTGCTGGTCACTGCCATGGAGGCACACAGCTGCAGAG
ACAGAGAGGACGTGGGCGGCAGAGAGGACTGTTGACATCCAAGCTTCCTTTGTTTTTTTTTCTGTCTCTCTC
ACCTCCTAAAGTAGACTTCATTTTTCTTAACAGGATTAGACAGTCAAGGAGTGGCTTACTACATGTGGGAGCTTT
TGGTATGTGACATGCGGGCTGGGCAGCTGTTAGAGTCCAACGTGGGGCAGCACAGAGAGGGGGCCACCTCCCCAG
GCCGTGGCTGCCCACACACCCCAATTAGCTG

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FIGURE 5087

MASQKRPSQRHGSKYLATASTMDHARHGFLPRHRDTGILDSIGRFFGGDRGAPKRGSGKVPWLKPGRSPLPSHAR
SQPGLCNMYKDSHHPARTAHYGSLPQKSHGRTQDENPVVHFFKNIVTPRTPPPSQGKGAEGQRPFGYGGGRADY
KSAHKGFKGVDAQGTLSKIFKLGGRDSRSGSPMARR

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FIGURE 5088

GGCGCCTGAGCGGACTGACGCCGAGACGCGCGCGGGTCAGCGGCGCGGGGACGCGGGGCGCTGGGCGCGGGGCTG
GGGGCGCAGGCCCGAGGCCGCGAGGAGCGCGCGGAGCGGCGATGAGCAGGCGGCCGGTGGCCCCGCGGGGCGCGGA
GCCCCGTGACAGCCTCGGCCAGGCGGGCGCTGCGATGGAGGCCGAGGGCCTGGACTGGCTCCTGGTGCCACTGCAC
CAGCTGGTGTCTGGGGCGCGGCCGCGGCCATGGTCTTCGAGGGGTGGTGCCCTACGTCCCGCAGTATCGGGAC
ATTGCGAGGACGCAAGCGCCGACGGCTTCTCCACCTACGTGTGCCTGGTGCTGCTGGTGGCCAACATTTTGC GG
ATACTCTTCTGGTTTGGGAAGGCGCTTTGAGTCCCCGCTGCTGTGGCAGAGCGCCATCATGATCCTGACCATGCTG
CTGATGCTGAAGCTGTGCACCGAGGTCCGTGTGGCCAACGAGCTCAACGCCAGGCGCCGCTCCTTTACAGCTGCA
GATAGCAAGGATGAAGAAGTCAAGGTTGCCCCAGGCGGTCCTTCTGGACTTCGACCCCCACCACTTCTGGCAG
TGGAGCAGCTTCTCGGACTACGTGCAGTGCGTCTTGCCCTTACGGGCGTGGCGGGGTACATCACCTACCTGTCC
ATTGACTCCGCCCTGTTTGTGGAGACCCTGGGCTTCTGGCTGTGCTGACCGAAGCCATGCTGGGTGTGCCCCAG
CTTTACCGCAACCACCGCCACCAGTCCACGGAGGGCATGAGCATCAAGATGGTGCTCATGTGGACCAGTGGTGAC
GCCTTCAAGACGGCCTACTTCTGTGAAGGTGCCCCCTGTGCAGTTCTCCGTGTGCGGCCCTGCTGCAGGTGCTG
GTGGACCTGGCCATCCTGGGGCAGGCCTACGCCCTTGCCTCGCCACCCCCAGAACGCCGGCGCCCCACGCCGTGCAC
CCCCTGGCACCAAGGCCCTCTGACAGTGGGGAGGACGAGGATGTGGGACCGCCAGCCGCGGGCACTGGTGGGCC
CTGACCTCCCCGCGGGGAGGGTGGGTGCTGTGGCCCCGTGCAGGTGTGGCAGAGATGGGGCATGGGCATTGGGGTC
TCCATCAGCCTCTGTGGGGTGTCTCAGGGTGGGCAGTGGGGGTGGGGCTGGGACGCTGTTTGTGCTCAGCGGGGA
CAGCCAGGGTTGATCTGGCCCCGAGGGTTTTGGATGTTTTTAGGATGACATAAAAAAGCAAGTGTTTTCCCCATTT
CCTCTTATGAAACACCGTCTGAGCCCAAGGTACACATTGGGCGGCCCTGCAGGAACCTGCTCCAGGTGGACACACG
GGCCAGCAGCCGCGAACCTTGAAGCTGGGGTGACCGCAGGAGACCCTGTAAGGCCTGTGAGCGGAGCCCTCGACC
CCGTGACACCCTGGCCAGACACCCTGCTTGGACTGGGGTGGCCTCTGCTACCCAGGGGTCTGGCACGGGGGAGGG
CTGGGGCTTTCTCTGCCTGGTACACACGGAAAGGCGGCTGTGCGGACGCAGGGTCACCGTGCTCCGGGTTTTCTG
ACAGTCGGTGTTCCTGGGCCTTTGGAGTGGCTGCGAGGCCCTGAACGCCCTTGTTGGATCCGCTGTGTCCAGCCCGG
CTGAGCATCGCCAGGGCTAGCTCATGCTGCTCTTGTGAGCCTCTGGTCTCCTCGAGTCTTGGGGACGTGGCAG
ATGCCAGCGACCATCAGACAACGTGGAGGCCCTCATGGGCAATGGCTGAGGGGGCCGGGCTGAGGCTGTGCACAT
GCAGTCTGCACGCCACTCTTGGGCTCTGCTGGCGGAGATCCCCTTCTTCTGGGTGCAGACTGCACCTCCGGATG
CAGTTTTGATGTCCATCTTCCAGGAGAGACGGTCTCGGGTCCAGGGAGTGGAGGGGGCTGCCCCTGCCGTGCAGG
TCCTGGCCGATGGCGCCTTACCCTGCTGCCCTGGGCTTTTGGCCTGAAGCAAATTCCTGAGTGGGGGGTACTGGG
GCCTGCCGATCCTGTCTGTCCACTGCCACCCCCGTGTGCTGGCTCCCTCACTTCTGGCTGCAGTGGGAGCCG
CCAGTCTGACCCTTGTACCGCACGCTCTGCCCCACCCCGTTGCAAGAGGTCACACCATGTACAGCAGCCTTGCA
CTGACCGCAGCCGGCCCCCAGGCCTCAGAGTTCTGGATGCTTCCGTGCGGCTCCAACAGGCATCGTCTTCCCTTC
CGCAGGTGGAGGGGGCGCTTCCCGCAGGCATCTGAGCTCTGTGCCGGGGCCGTGGCCATGGGAAGATGTTCCACG
CTGCCTCCTCCTCGAGTTTTCTCGGAAACACTTTGAATGTCTGAGTGAGGGTCTGCTTAGCTCTTTGGCCTG
TGAGATGCTTTGAAAATTTTTATTTTTTTAAGATGAAGCAAGATGTCTGTAGCGGTAATTGCCCTCACATTAAACT
GTCCGCCGACTGCAGGCGCAGTGACTGCTGAATGTACCCTGTGTGGCGACTTGAATCAATAAACCATTTGTGGAT
CCTG

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FIGURE 5089A

CTGGGTTGTGTCGCCGCGGTAGGCGCTGCGCTCTGAGCGCAGCGCAGGCCCCGTACCGACCGCCCCGCCCGCCCTC
TGTCGCCGATGGAGGTGCCGGCCGCGGGTTCGCGTTCTTGCCGAGGGCGCCCCGACGGCGGCTGTGGCCGAGGTGC
GCTGCCCCGGGGCCCCGCGCCGCTGCGCCTGCTGGAGTGGAGGGTGGCGGGCGGGCGCGGCCGTGCGCATCGGCTCGG
TGCTGGCCGTGTTTCGAGGCCGCCGCTCCGCGCAGTCTCCGGGGCCTCTCAGTCCCCTGTAGCCTCCGGGGGCT
GCGTGCGCCCCGCGCGGCCGGAACGCAGGCTGAGGTGCGAGCGCGCGGGCGTGGTGCGGGAGCTGTGCGCGCAGC
CGGGCCAGGTGGTTCGCCCCAGGAGCGGTTCTGGTGAGGTTGGAAGGATGCAGCCACCCGGTTGTTCATGAAAGGCC
TGTGTGCTGAATGTGGCCAAGACCTCACCCAGTTGCAGAGTAAGAACGGGAAGCAGCAGGTGCCGCTGTCCACGG
CGACCGTGTCCATGGTGCACAGCGTGCCGGAGTTGATGGTGAGCTCCGAGCAAGCTGAACAGCTGGGAAGAGAAG
ACCAGCAGCGACTGCACCGAAACCGGAAGCTGGTGCTCATGGTGGAAGTTGGACAGACGTTGATTACACAACCG
AGCAGCACTGTGACGAGATGTGGAATAAAGGCATCTTTCACTTCCAGCTGGGCCGGGGTGGAGCCATGCTGCACA
CGCGCCTGCGTCCCACTGCAAGGACTTCTTGAGAAGATCGCCAAGCTGTACGAGCTGCACGTTCTTACCTTCG
GCAGCCGGCTGTACGCACACACCATCGCAGGCTTTTTAGACCCCGAGAAGAAGCTTTTTTCTCACCGAATATTAT
CAAGGGATGAATGTATTGACCCATTTTCTAAACCGGGAACCTTAGAAATCTCTTTCTTGTGGAGACTCAATGG
TTTGCAATTATTGATGATCGAGAAGATGTCTGGAAGTTTGCCCCAATCTGATAACTGTGAAGAAATATGTATACT
TCCAGGGCAGGGTGATATGAATGCGCCCCCTGGGTCCCAGAAATCTCAGACGAGAAAGAAAGTAAATCATTCTC
GAGGCACTGAGGTCTCAGAGCCATCTCCGCCCCGTGAGAGACCTGAGGGGGTAACGCAGGCCCCCTGGAGTGGAGC
CCAGCAATGGCCTGGAGAAGCCTGCACGGGAGCTGAACGGCAGCGAGGGCCGCCACCCCGGGGACTCACCCGCC
CCGGGAAGCCAGACGAGAGGGACATCTGGCCCCCTGCCAGGCCCCCACCAGCAGCCAAGAGCTGGCAGGCGCTC
CTGAGCCCCAGGGATCTGTGCGCAGGGTGGCCGGGTGGCACCGGGACAGCGGCCCTGCCAGGGTGGCACGGGCA
CTGACCTGGACTTTGACTTATCCAGCGACAGCGAGAGCAGCAGTGAGTCCGAGGGCACGAAGTCTCTCTCTCCG
CCTCTGATGGCGAAAGCGAGGGGAAAAGAGGCCGGCAGAAAGCCGAAGGCTGCCCCAGAGGGAGCCGGGGCGCTGG
CACAGGGCAATTCCCTGGAGCCGGGGCGGCTGCAGCACCGAGTCTCCCCGAGAGGGCCGAGCCTGGCGCGCATG
CCCCGACAAGGAGCCTGAGCTGGGTGGGCGAGGAGGGCGAGCGGGATGGCCTCTGCGGCCCTGGGCAACGGCT
GTGCCGACAGGAAGGAGGCGGAGACCAGTACAGAACAGCGAGCTGTGCGGGGTCACTGCGGGTGAGTCCCTGG
ACCAGAGCATGGAGGAGGAGGAGGAGGAGGACACGGATGAGGATGACCACCTCATCTACCTGGAGGAGATCCTGG
TCCGTGTACACACTGACTACTATGCCAAGTATGACCGCTACCTCAACAAGGAGATCGAGGAGGCGCCGACATCC
GCAAGATCGTGCCGGAGCTCAAGAGCAAGGTGCTGGCAGCAGCTGGCCATAATTTTCAGTGGGCTACACCCGACAA
ACTTCCCGATAGAGAAGACGCGGGAGCATTACACGCCACGGCGCTGGGAGCGAAGATCCTCACTCGGCTGGTGC
TGAGCCCCGACGCCCTGCACAGGGCCACGCACCTGATCGCCGCGCGAGCTGGCACAGAGAAGGTGCTGCAGGCAC
AGGAGTGCGGAGCACCTGCACGTGGTCAACCTGACTGGCTGTGGAGCTGCCTGGAGCGCTGGGACAAGGTGGAGG
AGCAGCTCTTCCCGCTCAGGGACGATCACACCAAGGCACAGAGGGAGAACAGCCCTGCGGCCCTTCCCGACCGGG
AGGGTGTGCCCCCACCAGCTTGTTCACCCGATGCCGGTCTTCCCAAGGCCAGCCTGGCCCCGAGGTTCCGA
TCTACGACTCCAACACGGGAAGCTCATCAGGACGGGCGCCCCGGGGGCCCCAGCACCTCCAGCTCCCTACCCA
TCCGCCAGGAGCCCTCTTCTTCAGAGCGGTTCCGCCACCCAGCCGCAGATGTTTGGTGAAGAGCTGCCTGACG
CTCAGGACGGAGAGCAGCCTGGCCCTTCTAGAAGAAAAGCGACAGCCAGTATGTCTGAGACAATGCCGCTGTACA
CTCTTTGTAAGGAGGATTTAGAGAGTATGGACAAAAGAGGTGGACGACATCCTTGGAGAAGGCAGCGACAGCG
ACAGCGAGAAGAGGAGGCTGAGGAGCAGGAGGAGGAGCCCCAGCCCCGGAAGCCAGGGACCCGAGGGAGCGGA
CGCTCGGGGCACCTGCGTCCAGCGAGAGGAGCGCGGCAGGGGGCCGGGGGCCAGAGGCCACAAGAGGAAGCTGA
ATGAAGAGGACGCCGCCAGCGAGTCCAGCAGGGAGTCCAGCAACGAGGATGAGGGCAGCAGCTCCGAGGCCGACG
AGATGGCCAAGGCGCTGGAGGCGGAGCTCAACGACCTCATGTGAGCGCGGGCAGCGGGCAGGGACTGAAGCCTGA
CCGACCTCCAGCAGCACTCGGACGTCCCCGGACAGCCCTCAGTCTCGGTCCACGCTGCTTTCTTCCCAAAGGAC
ATGTATATTTGCAGAGCTCCACATACAGAAACACATTATTTTGCAAAATAGGTGTTTTTAAGAAGTTTTACTAC
AGGAATGTCTACTTTTGTAAAGTACAGGTGTTAAAGGCCAGGTGTGCTGTGCCAAAGAGCTCAGCAGAGGCTCA
CGTGGCCCAGGCTGGTGCGCCCGCTGTCTCGGTAAGGGGCGGGTGGTGTGTTTTCCCTTGTGTACCAGAGCAC
ATTCTTTAGGGGACGGCTTTGGGGTCCCACGAGACATGGACTAGGAGTTTAAGCAGGACAGTGTGCGTGCACGA
GCTCCGAGCCCAGCACAGACATGCCGGAACCCCCGCCGCTGCTGCTCCCTCCTAGGGAACCCATTTCCGGGGA
ACGCCGTGACTGTGCGGCAGCCTGGAGCTTCTGCAGCCTCTACGAGGGTCCACGCCACGTGGCCTGGGCTGC
CATCTGCCGTCTCTCCACTGGCATCTTGCAAGGGGGCGTTGCTTTTCTGGGCGGCCCTTTTATGTCTTGAGA

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FIGURE 5089B

CACCTGATGTAAAGTTTCTGTAAATCTATTTTCATATCTGACCCACCAAACAGATTCTCTTTAATAAAAAATCCTT
TTTGTAAGTTC

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FIGURE 5090A

CACCCCTTCCATCACCCAGCCTGAAACTCTACCCATTGAACACGAGCTGCCAACTCCGCCCTTGCTTCCCCATTC
CTGGCGACCACTGCTTCTGTCTCTGTGAATTTTACTATTCTAGGCACCTCACAAAAGTGGACTCATACGATATC
TGTAATTTTTCGTCTGGCTTCTCTATTGAATTTCTAAAGGGGGGTGGGAACTAAGCAGATCACAAGGGAGCTGCC
CACAGAGGTAAAGACAAGGTCAGGTAGGCTGAGAGACGCAGGAAAGCGGGTCAAGGCGTAGGGCTGGAGGGCAGG
GGCGGGCCCTGGGCGTGGGCTGGGGGTCTGCCCGGGGCGCACCCCGGGCGAGGGCTGCCCGGAGGAGCCGAGG
TTGGCGGACAGCTTGGCCCTGAGCTTGAGGGGAAGGCAGCGATGGGACAAAGACGAGGTCTAGGAAGAGGGTC
TGCAGAGCAGAAAGCACGGGTAGGGGGCGGCTGACGCTCGGAAGACAACGCATGGGAGCCGTGTGCACGTCGGGA
GCTCGGAGTGAGCGTGAGTTCCGTGCCAGGCCCGCGACTCGGCCCGACAGGACAGCGCTCCGGGTGCGACGGGGT
CCTGGAGCCGCGCTCGGGGAGGGCGCAGCGGAGGGCGAGCGGCGGGCTTAGGACCCGAGGCGCGGGCGGACTGG
GGGCGGCGGGGCTAGGACCCAGCGGCTCCGGCAGAGCGGAAGCGGCGGGGAGCTTCCGGGAGGGCGGGCTCGCA
GGCACCATGACTCCTGTGAGGATGCAGCACTCCCTGGCAGGTGAGACCTATGCCGTGCCCTTCATCCAGCCAGAC
CTGCGGGCGAGAGGAGGCCGTCCAGCAGATGGCGGATGCCCTGCAGTACCTGCAGAAGGTCTCTGGAGACATCTTC
AGCAGGTGGGTGCTGCCACTCACCCCCACCTGATGAGAGGGCCATCCCTGTCTGGGCAATCCAGCAACACACC
CTCTGGGAGCAGCCCCCTTGGGGAAATCCCGGTCTTGGGGAACCCATCTGGCTTCCCTGTGTGGGAGGGGGCTGAAG
TGAGAGCCCAACTTGGGAAGCTTTTACTCCTGGGAGTCCAAGAGCTCACTCCCTTCCACCCCACTTAGCCTCCTGG
TTTCTGTGGTGGCTCTGCTCTCAAACTCATGCTTTTCTTCCATTGGAGGGCCTATTCTTCACGTTTTCTCTG
CAGCCAACAAATATTTACCCAGCAGTGCTCGTGTGCAAGGCAGTGTGGGAATCTCTATATATCCAGCCACGGATA
AGGCAACATACCTCTCCACCTGGAGCGCACATTCTGGCAGGAGAGAAAGACCTAAATAAGCAATAGATGATTAGT
TCTTCAATAACAGTTGTGACAAGGTCTATTGATAATATTTTGTAACTACTAATATTTCATATAAACCGTGACAAC
CATTGATTTGAGTGCAATTAACCTCACACTTCATGAGCAGGCACTGCCGTCACTCTCATTTTATAGATGAGGAACTG
AGGCACAGAAGGGCTGAGAGACCTGGCCTAGTGACAGAGCCAGGATTCAAAGCCATAGATCATGGCCCCGGGTTA
TGTAAGTTATTACTGCATCTGTTTCAGGGGAGATGGGGTACTGTGAGGCTCGTCATGGGAAGCCTGGCTTGGTCTC
AGGTGAGGGAAGGCAGACGTGAGGAAATGACATTTATGGTAAAGTCTGAGGGTTGAGTGGGTAGGTTGGGAAGAA
CATTCCAGAAAGAAGCACATGAACCTACAGCCTGGAGGTGGAGGACCTAAAGGAAGCCAGCATGGCTGGAGCACG
GAGTGGCCATTGAGGGAGGCGAGCTGGAGGGCTGCAGCTTCTGTATTGGCAGTGCTGACCTCGCACAGTCTTGG
GGCTCCAGTGACTTCACCTCAGTGTTTATCTAACATGAGTGAGTGAATGGTGTGTTGCTCTTTTTTGGTAAAGGTC
CCAGGGGTTGTGGGTACACAGGTCCTGTCTTTGGCCATAAGCAAAGTGAATGAGGCTTGGTCTCCTTCCCAGG
ATCCACACCATGCCTCACATGGTAGACCCAGTGGGAAGTATGTGACTGCCTGACTCAGGTGCCTCTCGTGGTC
CAAGCCATCCCTGCCCTGTCCCTTCCCTGGTTGTGCCAGACCTGGAGCCCTGCTCCTTCACTTTGCAGCCTCC
TCTTCTGTACCAACTGGGAACCCACCTTCTCTGAAAGTCTTCCCCACTGACTACCGGCTTGCCCCGAGTTT
GTCAAGAATGTCCAGTAACAGGGGACACACAGTGAAGTGACTGAGGGGTACCTTGGAGTTGATGCCTTGGCT
CAGATCCAGCTCCCTGTCTTCTTCTGTAACTTGGGCAACCCCAACCCCTCTAAGCCTCGGTGTTCTCATTT
GTGAAGTTGTGGTAATAATGGTAGCTTCTGGTAGAATTATTTAAATATTAATAATCAAAACATGCAAAGGA
ATGGAACAGTGCCCTGGCACTTAGGAAGCCTTCAGGAAATGCTATCTTCCCTGTTGATAATCTTGACCCGTACA
CTGCCCTTGGTTGCCATTCTATAAACCTGCCACCAATAGTAACAAAGTGCTGGATGCACCTTTTGTGCTTATCTTT
GTGCTAAATGTGCCCGAGGGACACCTAGGGAAGAGGATGCAGGTCTTAAAGAGCCATCAGCTCCAGATTATGCC
ACCCCATGTCCAGCACTTAGAATGGAGGCCAAAACCATTCCTCGGAAATTGTGTTTCTTCCCTGCCAAGATGGGGAC
TGCGTGGTTGCCCTTCTCTGAGGGCAGCGCTGGATTTTGGCGTCTTCCCTTCTCTGCTGCTGCTTGGTACTTGGCACCT
TGTAAGCAGTTGCAITGCCCTGCCAGGGATGGGATGAGGAGAGGGCAGGAAGGCATTTCCCTGGGTAGTGGAGT
GCTGCGTTTATTGAGTGTGGGTTCTCCAAGCTGCTGGCACAGCGCAGGGAGGGCCAGATGCCTCTCAGGAGCCTT
GGGCTGAGTCTGGCTCCCTCACTCCTGGGTTCCAGGTCACTGCATCTGTCTCTCCACCATGTGCTCCACCTCG
TGCTGGACCTTAAGAGATACCAATTATGTGGCTGCCACTGTGTCTTAGAGGCTGGAATGGGAACACATAGGGCGA
GATTGATTGTTAATTGCTAGCATGAACCGCGTGGGCTTCTCAGGGTCTAGAGTGGAGAGAAATCGGTAAGAATTG
GTGGCACGCTGTGAGAACTCCCAGACCAAGCTAAGCAAAAATTAACCAATCAGTAGAGCAGCCTTCGGAGTAA
GGGCTAAAATGATGTCTCAGGGCCTGGTTTGGCTTCTTCCATGTCAGTTTGTCTTCTTGGGTCTGGCTGCAT
TCCCAGACAGGCCATGCTCTCGTGGTAGCAAGGTGACATGACACAGGGTCAGGTCCAGCAGGAAAGAATGCTGTC
CTGTGTCCCACTTCTCCAGAGCCACACTCACTCATCCACCTGGCTTGGTCTCATGTCTATCCAGAATCC
ATTAATGGGGCCAGGGGACTATGACACACCACTTGGCTTAGACTGAGGAGCTCTGTGGGCAGCCCCACCTGAAGC

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FIGURE 5090B

TCTGGGACTAAGCCTGCGAGAGAGATGGATTCCCCAAGGGAAAATGGGGCCATTGCTTGAGTAAAAAGGAAATAGT
TGCTGAAGAGGAAAACCACGTGCTTACTCCACATAGGGCAGACTCCTGGAAGAGGGGGGCAGGGTAGGGAGGTGG
ATATGCAGGTTGCCCTGGCAGGGTCTGGAATGGGGGCTGCAGGCTTGGAGGGAGGCCTCAGTGTGGCTTGGAAC
GTGGTGTATGGTGGTCTGCCGCGAAGGCCGGCCTGCACAGGGGTGGGAGGGGGGTGCTTCTGCATGGGAAGCACA
GACAGCGCTGCCTCTCCCTTGCACTCAGCTCTCGGGGCATGAGAGGCTAACTTTCCGTGAGCCTGTGGGCCAGGC
CTCTTTGAATGGGGCTGAGGGAGCTTTGCCCTGGTTCTTTGTGTCCCCACGGTGCCACGGGAGGCTCCCTGGCA
GGGTGTGGGGCAGGGCAGTGAGTGAAGAGTTGGGATGAGTGAGTTAGGGCCCACGGATTACTCAAGACAGGACTT
CAAGTTGATTCAAGCGTGTTAGGGAGCTGTGATTGGATTTTGAAGCAGGGCAGGGATGGGACAGAAGAGTTTGGGG
AAGGTTCCCTCAGGCATCCGTCACAGAAGGGACAAGAAGGGAGAGAGAGTGGATGCCAGGGACACCCAGAAGCTGT
TATTGTAGTCAGGATACGACAGGGGTGAGGCTACAGACAGGGGACTTGCAAGCAGGGAGGGCAGGGTGAGACATT
CAGAGGAAACGACGACAGGAAATGGTGACAGATAGGGAACGAGGATGAAGGGAAGGGAGAGCCAGTGACGACTGG
CAGTGGAGTGGGGAGCACCGCCACCTCTCCTCCTCCACTTGCCCCCTCTGTGGCACTGGACAAGCTAGTGGGCTT
TTCGTTGTCCATGGGCTTTTTTCGGTGGGGATGTGACCAGCTTTGAACCCGTCCCCCTTAAACATGCTCCTCCTGCA
CGGAAGAGACAGGGGCAGGGGAGAGACTCTCTCCCCACCACCCGGCTCAGGCCCCAGCACAGCCCCGGCCTCTGGC
CTCACTGGCGTCTGTGCCCAGTGACGCAGGCAGGTGAGCTCCTGGCAAATTAGCATTGCAGGCTGTGCTCTCTCC
TCCTGCTCTGCTGCAGCTGGGAGTGTGCAGAGACTGGAGGGGATGACAGTCACCCCTCTGTTTTCTGTGGTGGCTC
TGTTTTCTGTGGTGTGGATGCACCTCTGTTTTCTGTGGTGGCTCCAAGAGAGTGCACGGTCCCTGCTGATTGAA
AGAAGGATGAAGGGCAGAAGAGGGGCGGGGAGCTGTGTGCCCTAAGATCTCATTGCCTTTTTATGCCGATTAA
TGCTTTTAGCCCCCTACTGAGCTTATAGTTAACAGAAAGTTCCAGGTCTTTCTTCACCTGAACTGTGTCTAAAGCA
AGTCCCTCCACCTTCTGTATTTATACGCTTGATTTTTAAACCTAAATGTTGGGCTTCACATTTGTTTCCTTGTA
AATTCATCTTGGTGATTGCAGTCTACCCCTCTGGCC

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FIGURE 5091

MRGPSLSWAIPATHPLGAAPLGNP GPGEPIWLPCVGGAEVRAQLGSFYSWESKSSLPSTPLSLLVSCGGSALTTH
AFPPIGGPISRFPAANKYLPSSARVQGSVGISIYPATDKATYLTWSAHSGRERP K

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FIGURE 5092

AGATGATGATTATTCCCCACCTTCTAAGAGACAAAGACCAACGAGCCGCCACAGCCACCAGTCCCAGAACCCGCC
AATGCTGGGGAACGGAAAATGAGGGAGTTCAACTCTGGCCCTCACAATCCAGTGGAGGAGACGCAACTCATCTGC
CTCTGTCCCTCTGGGCACGCCTCGTGCCAGGTGCATCTGTGGACAGGGGCCATGCTCCTGGGCTTCCAAAGTTGG
AGAAAGCTGCCAGGCTCAGGTCTGAAGGCCAGAATTCTACAGTAAGTCTACTGAGTCAAGGTGGGAGCAGGGTC
GGTAGCTTCCGAGGCTCTGCGGGAGAATCTGTTTCCTGGCCGTAGAGGTGGCCTGCACTCCTCAGCCTGTGCTGC
CCGTCTCGAATGACTGGAGTTTCTGCTTCTGTCACTACACCTCCCACCCCTCTCCATCACCCTGCTCTGCTCTTAC
AAGGATCCGAAGAAATGGAATCATCGTATCGCTGATCTACGTAACAAACTGAAGAATTGTCTGAAAGAAAATAT
GACATGAACTTATGAATTCAATAGGTGAAGATTTACAACCTGATAAATCAACTTTGTGAGCTCGAGCTGTAAAAG
CCAAAGGTCCGGTGATGATCCCATAACCTTTTTTCCAGTCTCATGTTGAAGATTTTTATGTAGAAGGCCCTTCCCA
AAGGAATTTTTTTTTTTTTTTTTTTTTTTTGTAGATGGAGTTTCACTCTTATCGCCCAGGCTGGGGTGCAATGGCAC
AACCTTGCTGGTCACTGCAACCTCTGCCTCCTGGGTCAAGAAATTCTCCTGCCCTTAGCCTCCCAAGTCACTGGG
ATTACAGGTGCCACCACACACAGGCTAATTTTTGTATTTTTAGTGGAGATGCGGTTTACCATGTTGGCCGG
GCCAGTCTCGAATCCTGACGTCAAGTGATCTTCCCGCCTCGACTCCTGATATCAAGTGATCTTCCCGCCTCGGC
CTCCAGAGTGCTGAGATTACAGACGTGAACCCATGCCTGGCCAGGAATTTTGTTTTTTAGGAAGGCTTTCTACT
AATGGAATTCCTGGCCTTGAGAGGATGTTACTTTAGAAGGAAAGGATTTTTTGTATTATAAAGCTGGACCTACC
ATGAAAGACTTCTGAATCCAGGAAGAGAAACTGACTGGGCAACATGTTATTCAGAAACAGGACCTTGCCCTGTCA
CTCAGGATGGAGTTCACTGGTCTTATCATGGCTCATTATAGCCTCAAACCTCCAGGCTCAAGCAATCCTACCATG
TCAGCCTTCCAGTAGCTGGAACACAGATACCGGGTCTCACACTGTACCCAGGCTGGAGTACAGTGGCACAAC
CTCTGCTCACTGCAGCCTCCACCTGCCAGGCTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGTGATTT
CCAGGAAGTGCGCTCACAATGACTCAAGCTGCCACATACTGTTGATTGTGAAATGCCAGTTGAAGCATATGTCCT
GCAAGCTTAGGGGTGCTACAAGTTGACCACTGCAGCAGTAAAGATGACTCTGAAGAACGGCGTGGGATGGTTCCCT
TTCAAATGCACTTGAGCAGCGGTCTCCAACACAGGGCCACAGAGCTGGAGCTGGATCTACCATGAAAGACTTGT
GAATCCAGGAAGAGAGACTGACTGGGCAACATGTTATTCAGAATCTCCCTGTGCCATCCAGGCTGGAGTGCAGTG
ATGTGATCATAGCTCACTATAGCTTTGGCCTTCTGAGATCAAGCAATCCTCCCATCTCAACCTCCCAAGTAGCTA
GGACTACACACGCATGCCACCCATGCCCAGATCATTTTTGTAGAGTCAGAGTTTACCCTGGTGGCCAGGTTGGC
CATGTTGGCCAGATGGGGTCTTCTTTTGTGGCCAGGCTGGCCACAAATCCTGGGCTCAAGTGATCCTCCCACC
TCGTCCCTGTAGAGATGAGATTTAGTTATGTGCTCCAGGCTGATCTCAAACCTCCTGGGCTAAATCGATTGTCTCA
CCTCAGCCTCTCAAGTATGTTATGAAGGTTATATGTTAGGAAGGGTCCCAGGAGGTAAACCCACACAGATGGGAT
TTGGGCATAGGTTTGGTTTCCAGGGGGCAGTGCTGAGCTCTTTGCCAGTGGGAAATGGGATGCTGGTGATTTC
AGTAGGTGACCTCACAGTGACTCAAGCTACCACTTACTGTTGATTGTGACGAAATGCCAGCTGAGGCACATGCCT
TGGGAGCTAAGTGTTGCTGCCCTTGACCACTGTGAAGACTGGTGTGGGAAGGGTCGTTTTGGATGCACTTGAGC
AGGGGTCCCCAACCCCTGAGCCATGGAGCCGCAAGGAGCCACACAGCAGGAGGTGGGAACATCCAGTTGCAGGAA
AACAAGCTTAACACGCCCCTGATTCTACATTATGCTCCTACCTCCCGGCAGCCTCTCCAGGCCCAGAACTTTCT
CCAGTCAGCCTCTACAGACCAAGCTCATGACTCACAATGGCCTATTTAGGCCATACCCTACGTCACGGCAGCCT
CCGAGATGAGGCTACTGCCTCACAACAGCCTCCACAGGCACAGCTCCATCGTTACAATGGCCTCTTTAGACCCA
GCTCCTGCCTCCAGCCTTCTCTCCAGGCCCTGAACCTTCTCAAGTC

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FIGURE 5093

GCGACGGGACGCGCTGGGACCGGCGTCGGGGGTCGCGGGGACCA**ATG**CAGCGGAGGTGGGTCTTCGTGCTGCTCGA
CGTGCTGTGCTTACTGGTCGCCGCCCTGCCCTTCGCTATCCTGACGCTGGTGAACGCCCCGTACAAGCGAGGATT
TTACTGCGGGGATGACTCCATCCGGTACCCCTACCGTCCAGATACCATCACCCACGGGCTCATGGCTGGGGTCAC
CATCACGGCCACCGTCATCCTTGCTCTCGGCCGGGGAAGCCTACCTGGTGTACACAGACCGGCTCTATTCTCGCTC
GGACTTCAACAACACTACGTGGCTGCTGTATACAAGGTGCTGGGGACCTTCCTGTTTGGGGCTGCCGTGAGCCAGTC
TCTGACAGACCTGGCCAAGTACATGATTGGGCGTCTGAGGCCCAACTTCCTAGCCGTCTGCGACCCCGACTGGAG
CCGGGTCAACTGCTCGGTCTATGTGCAGCTGGAGAAGGTGTGCAGGGGAAACCTGCTGATGTCACCGAGGCCAG
GTTGTCCTTCTACTCGGGACACTCTTCCTTTGGGATGTACTGCATGGTGTTCCTTGGCGCTGTATGTGCAGGCACG
ACTCTGTTGGAAGTGGGCACGGCTGCTGCGACCCACAGTCCAGTTCTTCCTGGTGGCCTTTGCCCTCTACGTGGG
CTACACCCGCGTGTCTGATTACAAACACCACTGGAGCGATGTCTTGTGGCCTCCTGCAGGGGGCACTGGTGGC
TGCCCTCACTGTCTGCTACATCTCAGACTTCTTCAAAGCCCGACCCCCACAGCACTGTCTGAAGGAGGAGGAGCT
GGAACGGAAGCCCAGCCTGTCACTGACGTGACCCCTGGGCGAGGCTGACCACAACCACTATGGATAACCCGCACTC
CTCCTCC**TGA**GGCCGGACCCCGCCCAGGCAGGGAGCTGCTGTGAGTCCAGCTGATGCCACCCAGGTGGTCCCTC
CAGCCTGGTTAGGCACTGAGGGTTCTGGACGGGCTCCAGGAACCTGGGCTGATGGGAGCAGTGAGCGGTTCCGC
TGCCCCCTGCCCTGCACTGGACCAGGAGTCTGGAGATGCCCTGGGTAGCCCTCAGCATTTGGAGGGGAACCTGTTT
CCGTCGGTCCCCAAATATCCCCTTCTTTTTATGGGGTTAAGGAAGGGACCGAGAGATCAGATAGTTGCTGTTTTG
TAAATGTAATGTATATGTGGTTTTTAGTAAATAGGGCACCTGTTTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5094

MQRRWVFVLLDVLCLLVASLPFFAILTLVNAPYKRGFYCGDDSI RYPYRPDTITHGLMAGVTITATVILVSAGEAY
LVYTDRLYSRSDFN NYVA AVYKVLGTFLFGAAVSQSLTDLAKYMIGRLRPNFLAVCDPDWSRVNCSVYVQLEKVC
RGNPADVTEARLSFYSGHSSFGMYCMVFLALYVQARLCWKWARLLRPTVQFFLVAFALYVG YTRVSDYKHHWSDV
LVGLLQGALVAALTVCYISDFFKARPPQHCLKEEELERKPSLSLTTLTGEADHNHYGYPHSSS

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FIGURE 5095

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATCATGGCGGCTGCGCTGTTTC
GTGCTGCTGGGATTTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATATCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCAGA
GTGAAGGCTGTGAAGTCGTGACAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCCTGGGCATCGTGGCTGAGGTGCTGGTGTGGTCACCATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAACCTCTCCCTGAGGGCAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCCGCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAAGATTCTGTTCCCTTAGGT
TTTTTTCCTTCTGAAGTGTTTACGAGAGCCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCCTTGCCCTTTG
TGGAAAGTCACAGGTCACACGAGGGGGCCCCGTGCTCTGCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAAATTTTATGAGGGCCACGGGTCTGTGTTGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCACACCGAGGGCGACCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGCATCCGGGGGACGCTCTGGAGGGGGTTTGCTGGGGAACGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 5096

MAAALFVLLG FALLGTHGASGAAGTVFTTVEDLGSKILLTCSLND SATEVTGHRWLKGGVVLKEDALPGQKTEFK
VDSDDQWGEYSCVFLPEPMGTANIQLHGPPRVKAVKSSEHINEGETAMLVCKSESVPVTDWAWYKITDSEDKAL
MNGSESRRFFVSSSQGRSELHIENLNMEADPGQYRCNGTSSKGSQAIITLRVRSHLAALWPFLGIVAEVLVLVTI
IFIYEKRRRPEDVLDDDDAGSAPLKSSGQHQNKGKNVRQRNSS

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FIGURE 5097

CGGGCGGGCGGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATCATGGCGGCTGCGCTGTTTCGTGC
TGCTGGGATTTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGTGAAGGAGGACGCGCTGCCCCGCCAGAAAACGGAGTTCAGGTGGACTCCGACGACCACTGGG
GAGAGTACTCCTGCGTCTTCTCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCAGAGTGA
AGGCTGTGAAGTCGTGAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCACTGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCTGGGCATCGTGGCTGAGGTGCTGGTGTGGTCAACATCATCTTATCTACGAGAAGCGCC
GGAAGCCCCGAGGACGTCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACCTCTCTGAGGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCACTGCTTGAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATTCT
CCATCATACACTTCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTGAGGATTCTGTTCTTAGGTTTTTTTTCC
TTCTGAAGTGTTTACGAGAGCCCCGGGAGCTGCTGCCCTGCGGCCCGCTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCCTTGCCCTTTGTGGAAGT
CACAGGTACACGAGGGGGCCCCGTGTCCTGCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCACACCGAGGGCGACCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGTGGGGAATGGCGCCATCGCCGGGACTCCAGAACCAGCAGAAGCCTC
CCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 5098

GGCACGAGGATACCTCCTCATCAACTCTGACATAGTGTGCGAACAGGACATCTACGAGTGGACTAAGATCAATGG
CCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGGAGTAGGTGGCGGCGGCCATGCCGAGGCGTCGCCGCAT
CCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGTCCAAGATGC
GAGTCTGGTTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCCACAGCTCCC
ACAGACCAGAGCCGGCCACCGCTGGAGCACGTGGACCAGCACCTGTTACGCTGCCGAGGGCTACGGACAGTTT
GCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGACGGCAGGGAC
CCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCCCGCCTCACC
ACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTCAACGGCATC
ATCACGCCCCGCCACCATCCCCAGCCTGGGGCCCCTGGGGAGTCTGCACTCAAACCCCTATGGACTACGCTTGGGGG
GCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCACCGGCAGATAAA
GAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGCCCTGTGTGC
AAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGCTGCATCGTG
CCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCCACGAACCCC
CCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCTCCTCCAGCTCGCCCAGCAACGAGAACGCC
ACAAGCAACTCGTGAGCCACGTCGGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCCTCAGCCAGCGCCAC
ACGGCACCCACAGACTGGGTGCCCCGGCGGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCCTGTTCCAGG
GCAGGACCCGGGCCCCGGCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCCTCTGGGGCGTCCC
CAGCCTCCCCGTCTCTGTCTAACCTCACCCCTCTAAACGTTTCAGCGGTGGAAAGATTTTTATAATTTTAAATTAT
TACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGACGGGGCCAG
CGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACGGGCCACGTG
GGCCCCAGCCTCCCCCTCGGCCGCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATGACCAGCAA
ATTCAAGAACAAAACCTGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTATTTAAATAC
ACTACTTACAAAGAAAAAAAAAAAAAAAAAAAA

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FIGURE 5099

MAEASPHPGRYFCHCCSVEIVPRLPDYICPRCESGFIEELPEETRSTENGSA
PSTAPTDQSRPPLEHVDQHLLFTL
PQGYGQFAFGIFDDSFETFPFGAQADDGRDPESRRERDHP
SRHRYGARQPRARLTTRRATGRHEGVPTLEGI
IQQLVNGIITPATIPSLGPWGVLSNPMDYAWGANGLDAI
ITQLLNQFENTGPPPADKEIQALPTVPVTEEHVGS
GLECPVCKDDYALGERVRQLPCNHLFHDGCIVPWLEQHD
SCPVCRKSLTGQNTATNPPGLTGVSFSSSSSSSSSS
SPSNENATSNS

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CTTGTGAGTCTATAACTCGGAGCGCGTTGGGTTCGGTTCTGCTATTCCGGGCGCCTCCACTCCGTCCTCCCGCGGGGT
TGCTCTGTGTGCCATGGACGGCATTGTCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTC
TACTTGTGTCTACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAA
GTTCAAAGGTGACAGCCGAAGTGAGGCGTCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCAC
GGAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTACCAACCTCCTGATGCTGAAGGGGAAAAACCA
GGCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAACACTACACCTCGGTGACCCCTGTGCT
GCGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCAACCAGGCGCG
GGCCCAGGCGGGCCTGCAGGCGGTGAACTCGGTCCAGTCGGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGGCGT
GGACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCCTTCTACCCCTGTGAC
CCTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTGAAGATCATCACCTTACCAAGAACAACCA
GTTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCAGCACGCCAAGCTGTGCTGGACGGGCAGAACAT
CTACAACGCCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAA
GAGCCGTGACTACACACGCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGCG
CTTCGCCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCTCAAGCTGCAGGCCCTTTCGTTCC
GAACGTCCACGGCGCCCTGGCCCCCTGGCCATCCCCCTCGGCGGCGGGCGGAGCTGCGGCGGCAGGTCGGATCGC
CATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAACCCAGAGAGAGTCAACCCCCA
AAGCCTCTTTATTCTTTTCGGCTCTACGGTGACGTGCAGCGCGTGAAGATCCTGTTCAATAAGAAGGAGAACGC
CCTAGTGCAGATGGCGGACGGCAACCAGGCCAGCTGGCCATGAGCCACCTGAACGGGCACAAGCTGCACGGGAA
GCCCATCCGCATCAGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGGCCAGGAGGACCAGGGCCTGAC
CAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAACTTCCAGAACATATTCCCGCC
CTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTCAAGGTCTGTTTTCCAGCAA
TGGGGGCGTCTGTCAAAGGATTCAAGTCTTCCAGAAGGACCACAAGATGGCACTGATCCAGATGGGCTCCGTGGA
GGAGGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCACCACCTGCGGGTCTCCTTCTC
CAAGTCCACCATCTAGGGGCACAGGCCCCACGGCCGGGCCCCCTGGCGACAACCTCCATCATTCCAGAGAAAAG
CCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTAAAGAGAAATCAGTTTACCTGT
TTTTAAAAAATTAAATCTAGTTACCTTGCTCACCTTGCCTGACAGGGACAGCTCAGGCTCTTGGTGACTGTG
GCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCTCGGGGCCATGCCTTGGTGGGGCTGTGTCGGGC
GTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCCCTTGTCCTTAAAAAACCTGCCCTTCTGACGCCA
CACACCCACCCGGGTGTCTTGGGGACCCAAGGGGTGGGGGGGTACACCCAGAGAGAGGCAGGGGGCCTGGCCGG
CTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCGCGGCTGCGACACCCCAACCCAGCCCTCTAATCAAGTCA
CGTGATTCTCCCTTACCCCGCCCCAGGGCCTTCCCTTCTGCCCCCAGGCGGGCTCCCGCTGCTCCAGCTGCG
GAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGCCTAGCAATATTTCCAGTTGA
CCAAATATTCTAATCTTTTTTCATTTATATGCAAAAGAAATAGTTTTTAAGTAACTTTTTATAGCAAGATGATACA
ATGGTATGAGTGTAATCTAAACTTCCTTGTTGATTTACCTTGATGCTGTTACTTTTTATTTTATTCCTTGTAATT
AAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCGCCAGTGGGTGAGGCACAGGGAGCCCCGGTCC
TATCTTAGAGCCCTGAGCTTCAGGGAAGGGGCGGGCGTGTGCGCGCTCTGGCATCGCCTCCGGTTGCCCTTACA
CCACGCCCTTCACTGTCAGTCGCCTAGAAAACCTTGCTCTCAAACCTCAGGGTTTTTCTTCCTTCAAATTTTGAC
CAAAGTCTCATTCTGTGTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGGGCGCTCCTCCTGTCTTCTCTG
TGCTCTTTCTACCGCCCCCGCTCCTGTCCCGGGGGCTCTCCTAGGATCCCCCTTCCGTAAAAGCGTGTAACAAG
GGTGTAATATTTATAATTTTTTATACCTGTTGTGAGACCCAGGGGCGGCGCGCGGTTTTTATGGTGACACA
AATGTATATTTTGTAAACAGCAATTCAGGCTCAGTATTGTGACCGCGGAGCCACAGGGGACCCACGCACATTC
CGTTGCCTTACCCGATGGCTTGTGACGCGGAGAGAACCAGATTAAACCCTTTGAGAACTCCTCCCTTGCTTAGC
CTGTGTTTCGCTGTGGACGCTGTAGAGGCAGTTGGCCAGTCTGTACCTGGACTTCGAATAAACTTCTGTATCC
TCGCTCCGTTCCGCCTTAAAAAATAA

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FIGURE 5101

MDGIVPDI AVGTRKGSDEL FSTCVTNGPFIMSSNSASAANGNDSKKFKGDSRSAGVPSRVIHIRKLPIDVTEGEV
ISLGLPFGKVTNLLMLKGKNQAFIEMNTEEAANTMVNYTSTVTPVLRGQPIYIQFSNHKELKTDSSPNQARAQAA
LQAVNSVQSGNLALAASAAAVDAGMAMAGQSPVLRIIVENLFYPVTL DVLHQIFSKFGTVLKIITFTKNNQFQAL
LQYADPVSAQHAKLSLDGQNIYNACCTLRIDFSKLTSLNVKYNNDKSRDYTRPDLP SGDSQPSLDQTMAAAFASP
YAGAGFPPTFAIPQAAGLSVPNVHGALAPLAIP SAAAAAAGRIAIPGLAGAGNSVLLVSNLNP ERVTPQSLFI
LFGVYGDVQVRVKILFNKKENALVQMADGNQAQLAMSHLNHKLHGKPIRITLSKHQNVQLPREGQEDQGLTKDYG
NSPLHRFKKPGSKNFQNIFFPSATLHLSNIPPSVSEEDLKVL FSSNGGVVKGFKFFQKDRKMALIQMGSV EEA VQ
ALIDLHNHDLGENHHLRVSF SKSTI

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FIGURE 5102

CTTGTGAGTCTATAACTCGGAGCCGTTGGGTTCGGTTCTTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTC
TGCTCTGTGTGCCATGGACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTC
TACTTGTGTCTACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAA
GTTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCAC
GGAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTACCAACCTCCTGATGCTGAAGGGGAAAAACCA
GGCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAAGTACTACACCTCGGTGACCCCTGTGCT
GCGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCCAACCAGGCGCG
GGCCAGGCGGCCCTGCAGGCGGTGAAGTCCGCTCAGTCCGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGT
GGACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCTGTGAC
CCTGGATGTGCTGCACAGATTTTCTCCAAGTTCGGCACAGTGTGAAGATCATCACCTTCACCAAGAACAACCA
GTTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCAGCACGCCAAGCTGTGCTGGACGGGCAGAACAT
CTACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGTCAACGACCTCAACGTCAAGTACAACAATGACAA
GAGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGC
CTTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGTGGTTTCCCTCCACCTTTGCCATTCTCTCA
AGCTGCAGGCCTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCTGGCCATCCCCCTCGGCGGCGGCGGCAGC
TGCGGCGGCAGGTGGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATCTGTATTGCTGGTCAGCAACCTCAA
CCCAGAGAGAGTACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCT
GTTCAATAAGAAGGAGAAGCCCTAGTGAGATGGCGGACGGCAACCAGGCCAGCTGGCCATGAGCCACCTGAA
CGGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGG
CCAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAA
CTTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCT
CAAGGTCTGTGTTTTCCAGCAATGGGGGCGTCTGTCAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACT
GATCCAGATGGGCTCCGTGGAGGAGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCA
CCACCTGCGGGTCTCCTTCTCCAAGTCCACCATCTAGGGGCACAGGCCCCACGGCCGGGCCCCCTGGCGACAAC
TTCCATCATTCAGAGAAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTA
AAGAGAAATCAGTTTACCTGTTTTTAAAAAAATTAATCTAGTTACCTTGCTCACCTGCGGTGACAGGGACAG
CTCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCTCGGGGCCATGCC
TTGGTGGGGCTGTGTGCGGCGTGGGGCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCTTGTGCTTAAA
AACTGCTTCTCTGCAGCCACACCCACCCGGGGTGTCTGGGGACCCAAGGGGTGGGGGGGTACACCAGAG
AGAGGACGGGGGCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCGCGGCTGCGACACCCCAAC
CCCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCGCCCCCAGGGCCTTCCCTTCTGCCCCAGGCGGG
CTCCCCGCTGCTCCAGCTGCGGAGCTGGTGCACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTG
CCTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCAATTTATATGCAAAAGAAATAGTTTTAAGTAAC
TTTTTATAGCAAGATGATACAATGGTATGAGTGAATCTAACTTCTTGTGGTATTACCTTGTATGCTGTTACT
TTTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCGGCCAGTGGGTC
AGGCACAGGGAGCCCCGGTCTATCTTAGAGCCCCGTAGCTTCAGGGAAGGGGCGGGCGTGTGCGCGCTCTGGC
ATCGCTCCCGTTGCCCTTACACCACGCCTTACCTGCAGTCGCCTAGAAAACCTTGCTCTCAAACCTCAGGGTTTT
TTCTTCTTCAAATTTTGGACCAAAGTCTCATTTCTGTGTTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGG
GCGCTCCTCCTGTCTTCTGTGCTCTTCTACCGCCCCGCGTCTGTCGCGGGGCTCTCTAGGATCCCCTT
TCCGTAAAAAGCGTGTAAACAAGGGTGTAAATATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGG
GCGGTTTTTTTATGGTGACACAAATGTATATTTTGTAAACAGCAATTCAGGCTCAGTATTGTGACCGCGGAGCCA
CAGGGGACCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGAAGCGGAGAGAACCATTAAACCGTTTGA
GAACTCCTCCCTTGTCTAGCCCTGTGTTGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACT
TCGAATAAATCTTCTGTATCTCGCTCCGTTCCGCCTTAAAAA

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FIGURE 5103

MDGIVPDIAVGTKRGSDELFSTCVTNGPFFIMSSNSASAANGNDSKKFKGDSRSAGVPSRVIHIRKLPIDVTEGEV
ISLGLPFGKVTNLLMLKGKNQAFIEMNTEEAANTMVNYTTSVTPVLRGQPIYIQFSNHKELKTDSSPNQARAQAA
LQAVNSVQSGNLALAASAAAVDAGMAMAGQSPVLRRIIVENLFYPVTLDV LHQIFSKFGTVLKIITFTKNNQFQAL
LQYADPVSAQHAKLSLDGQNIYNACCTLRIDFSKLTSLNVKYNNDKSRDYTRPDLP SGDSQPSLDQTMAAAFGAP
GIISASPYAGAGFPPTFAIPQAAGLSVPNVHGALAPLAIP SAAAAAAAAGRIAIPGLAGAGNSVLLVSNLNP
TPQSLFILFGVYGDVQRVKILFNKKENALVQ MADGNQAQLAMSHLNHGKHLHGKPIRITLSKHQNVQLPREGQEDQ
GLTKDYGNSPLHRFKKPGSKNFQNIFFPSATLHLSNIPPSVSEEDLKVLFSSNGGVVKGFKFFQKDRKMALIQMG
SVEEAVQALIDLHNHDLGENHHLRVSF SKSTI

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[illegible]

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FIGURE 5105

MKLQAVMETLLQRQQRARQELEARQQLPDPAPPAAPPGRARAAPDEDREPESARMQRAQMAALAAMRAAAAGLGHP
ASPGGSEDGPPGSEEEEDAAREGTPGSPGRGREGPGEEHFEDMASDEDMKPKWEEEEEEMEEDLGEDEEEEEEDYEDE
EEEEDEEGLGPPGPASLGTTALFPRKAQPPQAFRGDGVPRVLGGQERPGPGPAHPGGAHVAPQLQPPDHGDWTY
EEQFKQLYELDGDPKRKEFLDDLFSFMQKRGTVPVNRIPIMAKQVLDLFLMLYVLVTEKGGGLVEVINKKLWREITKG
LNLPTSITSAAFTLRTQYMKYLYPYECEKRGLSNPNELQAAIDSNRREGRRQSFSGSLFAYSPGGAHGM LSSPKL
PVSSLGLAASINGSSITPAPKIKKEEDSAIPITVPGRLPVSLAGHPVVAAQAAAVQAAAAQA AVAAQAAALEQLR
EKLESAEPPEKKMALVADEQQRLMQRALQQNFLAMAAQLPMSIRINSQASESRQDSAVNLTGTNGSNSISMSVEI
NGIMYTGVLFAQPPAPTPTSAPNKG GGGGGSSSNAGGRGGNTGTSGGQAGPAGLSTPSTSTSNNSLP

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FIGURE 5106

GGCAAGATGGCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACCTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTACCTGTCTGACTGCATCACCCAATGGTCTCTACGTCTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCTGAGTCGACACTACCAGGAC
GTCTCTGCTTCACTTACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGTGTTTGG
AGCCTCTGCAGCGTGTGTCAGGCCGACCCCTCCAGGATTCCGGCGCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGAGCTGCTGCTCTCCGTCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTGACCTCTTACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCACTGTCCACTGACGGCAGCGTGTGCTCTCAGGCTCCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCCTCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCTGTGTCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAAGTGAAGGCCCGGAGACCCCGGCCCGAGGCGCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTGCTGTT
CGGGTTTTTCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

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FIGURE 5107

MAAPMEVAVCTDSAAPMWSCIVWELHSGANLLTYRGGQAGPRGLALLNGEYLLAAQLGKNYISAWELQRKDQLQQ
KIMCPGPVTCLTASPNGLYVLAVAGVAESIHLWEVSTGNLLVILSRHYQDVSCLOFTGDSSHFISGGKDCLVLVWSL
CSVLQADPSRIPAPRHVWSSHHPITDLHCGFGGFLARVATSSLDQTVKLWEVSSGELLLSVLFVDSIMAVTMDL
AEHHMFCGGSEGSIFQVDLFTWPGQRERSFHPEQDAGKVFKGHRNQVTCLSVSTDGSVLLSGSHDETURLWDVQS
KQCIRTVALKGPVTNAAILLAPVSMLSSDFRPSLPPLPHFNKHLGAEHGDEPRHGGLTLRLGLHQGSEPSYLDL
TEQLQAVLCSTMEKSVLGGQDQLRVRVTELEDEVRLNRKINRDLDFDFSTRFITRPAK

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FIGURE 5108

ATGAGCTCCACGCAGTTCAACAAGGGCCCCCTCGTACGGGCTGTGCGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCCGGCGGCACTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCTGCTTCCCCGCTGGGCCATCTGCACCCTGCATTTCATAGAGCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGCTAA

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FIGURE 5109

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAAGTATCTTATGCACACTCATGAACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACCTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCCTGTGGACCTGTTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTTCGACGATGCCACCATGAAGGCTGGCCAGTGCCTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCAGCAGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACCTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCCGAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTACTGAGGCTCCAGCAGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTTCATCTTTTTTTTTTTTTTTCTTAACCCGTTTCACTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTTCAGCTGAGCAGTTTTGTGGTTTTCTATGCCCGCAAGTTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTTCTGAGTTG
TTGGGGCTAAGCCTGACCCCTCTCCATGCTCCCCGCCCAACCCACTCTGGCCTCAGTAGATTTTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCGACAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCCACCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAATAAAACCTCTG
TTTGTACGAAG

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FIGURE 5110

GGCGGCGGCGGCGGAGGCTGCCATGGACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGGCGCACGGACCTCACCGTGCTGGTGGCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAGTAGCTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCTTCCACCCACGTTCTCCCGTCTGTTGGGGTGAGGCTT
CCTGTGGCCCAGCCGCCCCATTACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCAGCTGGTGCCGGGTCTTACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCCTCTGGGCCCTTCGGCCTTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGGCGGCCCCCGCCGGCCTCGGCTCTTTACTCCATTACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

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FIGURE 5111

MDDEEETYRLWKIRKTIMQLCHDRGYLVTQDELDQTLEEFKAQSGDKPSEGRPRRTDLTVLVAHNDDPTDQMFVF
FPEEPKVGIKTIKVYCQRMQEENITRALIVVQQGMTPSAKQSLVDMAPKYILEQFLQQELLINITEHELVPEHVV
MTKEEVTPELLARYKLRENQLPRIQAGDPVARYFGIKRGQVVKIIRPSETAGRYITYRLVQ

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FIGURE 5112

CGGGGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCG
CCGCGATGAGCCTCGGCCGCCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCC
TGGCCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACA
TCGACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAG
GCAAGACCGAAGTAACTACACTCAGCTCGTTCGACCTGCACGCCCATACTGAGTGTGGTTTGC GGATCCTGG
CCTTCCCGTGTAACCAAGTTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCCGCCGGGGCTACA
ACGTCAAATTCGATATGTTTCAGCAAGATCTGCGTGAACGGGGACGACGCCACCCGCTGTGGAAGTGGATGAAGA
TCCAACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAACCTTCACCAAGTTCCTCATCGACAAGAACG
GCTGCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTCTAGC
TCCACAAGTGTGTGGCCCCGCCCCGAGCCCCTGCCCACGCCCTTGAGCCTTCCACCGGCACTCATGACGGCCTGC
CTGCAAACTGCTGGTGGGGCAGACCCGAAAAATCCAGCGTGACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGG
GCTTGGCTCGGCGCCCCCACCCCTGGCTACCTTGTGGGAATAAACAGACAAATTAGAAAAAAAAAAAAAAAAA

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FIGURE 5113A

GCCCCAAACCCGGAAGTGAGCGCGGCAGCTGCGAGGCTCGGAGAAACAGGCGCCGCGGGCTCCGCGCCCCGGCCG
GACCCGGGCCCCGAGATCATGATGCTGCCGCCACCGCCGCCACCACGGAGCGAGAAGCCCAGATAGACGCCCCGGC
GGCCCCGGGTCTTGAGTCCCGCCGCTGCTGCCCGCCGAGGACCCACCCCGCCTGCCGCCCCGATGCTTGACG
TGGGGCCCCGCCATGGACAGGGATTACCCGCAGCATGAACCCCCGCCGGCGGGCAGCCTCCTGTACAGCCCGCCGC
CCCTGCAGAGCGCCATGCTGCACTGCCCTACTGGAACACCTTCTCGCTGCCGCCATACCCTGCCTTCTCCAGCG
ACAGCCGCGCGTTTCATGAGCTCCGCTCCTTCTCGGCAGCCAGCCCTGCCAGACACCAGCTATGCCCCCGTGG
CCACCGCCTCCAGCTTGCCACCAAAGACCTGCGACTTTGCTCAGGACTCCTCCTATTTTGAGGACTTCTCCAACA
TCTCCATCTTCTCCTCGTCCGTGGACTCCCTGTGCGACATCGTGGACACGCCCCGACTTCTGCCGGCTGACAGCC
TCAACCAGGTGTCCACCATCTGGGACGATAACCTGCCCCCTCCACCCACGATAAGCTGTTCCAGCTCAGCAGGC
CGTTTGAGGCTTCGAGGACTTCTGCCCTCCCACAGCACCCCGCTTCTCGTCAGCTACCAGGAGCAGAGTGTGC
AGAGCCAGCCAGAGGAGGAGGACGAGGCTGAGGAGGAGGAGCGAGGAGCTGGGGCACACAGAGACCTACGCCG
ACTACGTGCCGTCCAAGTCCAAGATCGGGAAGCAGCACCCAGACCGCGTGGTGGAGACCAGCACACTGTCCAGCG
TCCCACCCCCAGACATCACCTACACCTGGCCCTGCCCTCGGACAGCGGGGCCCTGTCTGCCCTGCAGCTAGAGG
CCATCACCTACGCTGCCAGCAACACGAGGTCTGTCCCCAGCGGGCAGCGCGCGGGCTTTCTCATCGGCGATG
GGGCCGGCGTGGGCAAAGGCCGGACGGTGGCCGGAGTTCATCTGGAGAACCACCTGCGCGGGCCGGAAGAAAGCAT
TGTGGTTACGCGTCTCCAACGACCTCAAGTACGATGCGGAGCGCGACCTGCGGGACATCGAAGCCACGGGCATCG
CGGTGCACGCGCTCAGCAAGATCAAGTACGGTGACACCACTACCTCAGAGGGCGTCTCTTCGCCACCTACTCCG
CCCTGATTGGGGAGAGCCAGGCCGGCGGCCAGCACCGCACTCGCCTCCGGCAGATCCTGGACTGGTGTGGGGAGG
CCTTCGAGGGCGTTCATCGTGTTCGACGAGTGTACAAAGCCAAAGATGCCGGCTCCACCAAGATGGGCAAGGCTG
TGCTAGACCTGCAGAACAAAGCTGCCCCTGCGCCGCGTGGTCTACGCCAGCGCCACAGGTGCCTCTGAGCCTCGGA
ACATGATCTACATGAGCCGCTTGGGTATCTGGGGCGAGGGCACACCCCTCCGGAACTTTGAGGAGTTCCTGCACG
CCATCGAGAAGAGGGGCGTGGCGCCATGGAGATCGTGGCCATGGACATGAAGGTCAGCGGCATGTACATCGCAC
GCCAGCTCAGCTTCTCCGGCGTCACCTTCCGCATCGAGGAGATCCCGCTGGCCCCAGCCTTCGAGTGCCTTACA
ACCGCGCGGCCCTGCTGTGGGCCGAGGCCCTGAACGTGTTCAGCAGGCGGCCGACTGGATCGGCCTGGAGTCGC
GCAAGTCCCTGTGGGGCCAGTTCTGGTGGGCACACCAGCGCTTCTTCAAGTATCTGTGCATCGCAGCCAAGGTGC
GCCGGCTGGTGGAGCTGGCCCGAGAGGAGCTGGCGCGAGACAAAGTGGTGGTTCATCGGGCTGCAGTCCACGGGCG
AGGCGCGCACGCGGGAGGTGCTGGGGGAGAACGATGGGCACCTCAACTGCTTCGTCTCGGCCGCTGAAGGCGTGT
TCTGTGCTAATTGAGAACCTTCCGTCCACCAAGAGAAAGCGGGACAGAGGAGCGGGCAGCAAGCGGAAAC
GGCGACCTCGGGGACGCGGGGCCAAAGCCCCCGGCTGGCGTGCGAGACAGCGGGCGTATCCGCATCAGTGACG
ACAGCAGCACGGAGTCGGACCCTGGCTGGACAGCGACTTCAACTCCTCCCCGAGTCCCTGGTGGATGACGACG
TTGTTCATCGTTGATGACGTCGGGCTCCCCAGTGACGACCGGGGACCCCTGTGCTCCTGCAGAGAGACCCGCATG
GCCCCGGGGTCTGGAGCGGTGGAGCGGCTGAAGCAGGATCTGCTGGACAAAGTGGCGCGGCTGGGCCGGGAAC
TGCCAGTCAACACCTGGACGAGCTATCGACAGCTGGGCGGCCCCAGCGGGTGGCGGAGATGACCGGCAGGA
AAGGCCGCGTGGTGTCCAGGCCGACGGGACGGTGGCTTCGAGTCGCGGGCAGAGCAGGGTCTGTCCATCGACC
ACGTGAACCTCAGGGAGAAGCAGCGCTTCATGAGCGGCGAGAAGCTCGTGGCCATCATCTCGGAGGCCTCCAGCT
CGGGTGTCTCCCTCCAAGCCGACCGCGTGTCCAGAACCAGCGGCGCGCGTGCACATGACCTTGGAGCTGCCGT
GGAGCGCCGACCGCGCATCCAGCAGTTCGGCCGCACCCACCGGTCCAACCAGGTCTCCGCGCCAGAGTATGTCT
TCCTCATCTCGGAGCTGGCCGGGGAGCGCGGTTCCGCTCCATCGTGGCCAAGCGCCTGGAGAGTCTGGGGCCCC
TGACCCACGGAGACCGCGCGCCACGGAGTCCCGTGACCTCAGCAAGTACAACCTTTGAGAACAAGTATGGCACCC
GGGCCCTGCACTGTGTCTCACCACCATCTGAGCCAGACTGAGAACAAAGTGCTGTGCCCCAGGGATAACCTG
GAGGGGTCCCCACCTTCTTCCGGGACATGAAGCAGGGCCTGCTGTCTGTGGGCATTGGTGGCCGGGAGTCCCGGA
ATGGCTGCTGGAGCTGGAGAAGGACTGTTCCATCACCAAGTTCCTGAACCGCATCCTGGGGCTGGAGGTGCACA
AGCAGAACGCCCTGTTCCAGTACTTCTCAGACACCTTCGACCACCTCATCGAGATGGACAAGCGGGAGGGCAAAT
ACGACATGGGCATCCTGGACCTTGCTCCCGGTATCGAGGAGATCTACGAGGAGAGCCAGCAGGTGTTCTGGCTC
CCGGGCACCCGCAGGACGGGCAGGTGGTCTTCTACAAGATCAGCGTGGACCGCGGCTGAAGTGGGAGGACGCT
TTGCCAAGTCGCTGGCGCTGACGGGCCCTATGACGGCTTCTACCTCTCCTACAAGGTCCGCGGTAACAAGCCCA
GCTGCTGCTGGCGGAGCAGAACCAGCGGCCAGTTCTTACGGTGTACAAGCCCAACATCGGCCGGCAGAGCCAGC
TGGAGGCCCTGGACAGCCTCCGCCGCAAGTTCACCGGGTCACCGCGGAGGAGGCCAAGGAGCCCTGGGAGAGTG

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FIGURE 5113B

GCTACGCTTTGTGCTGACGCACTGCAGCCACAGCGCCTGGAACCGGCACTGCCGGCTGGCGCAGGAGGGTAAGG
ACTGCCTGCAGGGGCTGCGGCTGCGGCACCACTACATGCTGTGCGGCGCGCTGCTGCGCGTGTGGGGCCGCATCG
CCGCCGTGATGGCCGACGTGAGCAGCAGCAGCTACCTGCAGATCGTGCGGCTGAAGACCAAGGACAGGAAGAAGC
AAGTGGGCATCAAGATCCCCGAGGGCTGCGTGCGCCGGGTGCTGCAGGAGCTGCGGCTGATGGATGCGGACGTGA
AGCGCAGGCAGGCGCCCGCCCTGGGCTGCCCCGCCCCGCCCCGCCCCGCGCCCGCTGGCGCTGCCTTGCGGCCCCG
GAGAGGTGCTGGACCTACCTACAGCCCCCGGCCGAGGCCTTCCCGCCGCCCCCGCACTTCTCTTTCCCGGCGC
CGCTGTCCCTGGACGCCGGCCCCGGCGTCTGCGGCTGGGCACCCCCGACGCCCAGGCCGACCCTGCGGCCCTCG
CGCACCAGGGCTGCGACATCAACTTCAAGGAGGTGCTGGAGGACATGCTGCGCTCGCTGCACGCGGGGCCGCCCT
CCGAGGGCGCGCTGGGGGAGGGCGCGGGGGCGGGGGGCGCGGCGGGCGGTGGTCCCAGCGGCAGAGCGTGATCC
AGTTCAGCCCACCCTTCCCCGGCGCCAGGCTCCTCTCTGACACGCCTTTAGGCGAAACATGCCCAAGACACAG
GGACCGTTTCTCCCCTAGGAGCAGCGGTGGGGAGCAGGGCCAAGGTCCCCTGACCACTGCTCAGAGGAGCCCTAG
GCCCTGGCCGCAGTGCCTTCAGCGCCCGACCCGGGCCCCACCTGGTCAGCCCTGGCGGGGCCCACTCAGGACAG
CTGGGGGCGGGGCGTGGCAGGGCCCTCTCTGTGCTCTCCTCCCAAGTAGGAAGGGGCTCCGGGTGGCTGCTCT
GGGACTGGGCACCCACAAGGGCTCAGTGGGCCCAAACCCCTTGAATCCGTGAAACCGGGTGGTCCCAAGAGCTAG
AAACTCAGGAAACCCAGGTGCTCAGGGCCCCGCGTCTCGGGGGCTCCGTGGGGCAGACCCCTGCTAATATATGC
AATTCTCCCTCCCCAGCCCTTCCCTGACCCCTAAGTTATTGCCCGCTCACCTCTCCAGGCCCCAGGCCGCGGA
GCTGGCAGGGTGGCGCCTGCGGTTTCTATGTATTTATAGCAAGTTCTGATGTACATATGTAAAGGACTTTTTTAA
AT

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FIGURE 5114

CCCAGGGTCCCCGAGGACGAAGTTGACCCTGACCGGGCCGTCTCCAGTTCTGAGGCCCCGGGTCCCACTGGAAC
CGCGTCTGAGCCGCCGTCCCGGACCCCGGTGCCCGCCGGTCCGCAGACCCTGCACCGGGCTTGGAATCGCAGCC
GGGACTGACGTGTAGAACAATCGTTTCTGTTGGAAGAAGGGTTTTTCCCTTCCTTTTGGGGTTTTTGTTCCTTT
TTTTTTTCTTTTTTCTTTGTAAATTTTGGAGAAGGAAGTCGGAACACAAGGAAGGACCGCTCACCCGCGGACT
CAGGGCTGGCGGCGGGACTCCAGGACCCTGGGTCCAGCATGGAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCA
CGGAGGGCGAGCTGATGTCGGTGGGTATGGACACGTTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGC
CGCGCCGCAAGCGGGCCAAGCTCATCGGCAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGG
TGAAGGAGGTGCTGGACTCGGAGACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGA
TCCCCAACGGGGAGGCCAACGTGAAGAAGGAAATCAACTACTGAGGAGGTTACGGCACAATAATGTCATCCAGC
TGGTGGATGTGTTATACAACGAAGAGAAGCAGAAATATATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGG
AAATGCTGGACAGCGTGCCGGAGAAGCGTTTCCAGTGTCAGGCCCCACGGGTACTTCTGTCAGCTGATTGACG
GCCTGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGGTG
GCACCCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTTCGCGGCGGACGACACCTGCCGGACCA
GCCAGGGCTCCCCGGCTTTCCAGCCGCCCCGAGATTGCCAACGGCCTGGACACCTTCTCCGGCTTCAAGGTGGACA
TCTGGTTCGGCTGGGGTCACCCCTTACAACATCACCCACGGGTCTGTACCCCTTCGAAGGGGACAACATCTACAAGT
TGTTTGAGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCCCGCTCTCTGACCTGCTGAAAG
GGATGCTTGAGTACGAACCGGCCAAGAGGTTCTCCATCCGGCAGATCCGGCAGCACAGCTGGTTCCGGAAGAAAC
ATCCTCCGGCTGAAGCACCAGTGCCCATCCACCGAGCCAGACACCAAGGACCGGTGGCGCAGCATGACTGTGG
TGCCGTACTTGGAGGACCTGCACGGCGCGGACGAGGACGAGGACCTCTTCGACATCGAGGATGACATCATCTACA
CTCAGGACTTCACGGTGCCCGGACAGGTCCCAGAAGAGGAGGCCAGTCACAATGGACAGCGCCGGGGCCTCCCCA
AGGCCGTGTGTATGAACGGCACAGAGGCGGCGCAGCTGAGCACCAAAATCCAGGGCGGAGGGCCGGGCCCCAACCC
CTGCCCGCAAGGCCTGCTCCGCCAGCAGCAAGATCCGCCGGCTGTCCGGCTGCAAGCAGCAGTGAGGCTGGCCGC
CTGCAGCCCGTGTCCAGGAGCCCCGCCAGGTGCCCCGCCAGGCCCTCAGTCTTCCTGCCGGTTCCGCCCGCCCT
CCCGGAGAGGTGGCCGCCATGCTTCTGTGCCGACCACGCCCCAGGACCTCCGGAGCGCCCTGCAGGGCCGGGCAG
GGGGACAGCAGGGACCGGGCGCAGCCCTCCCCCTCGGCCGCCCGGCAGTGACGCGGCTTGTTGACTTCGCAGC
CCCGGGCGGAGCCTTCCCGGGCGGGCGTGGGAGGAGGGAGGCGGCCTCCATGCACTTTATGTGGAGACTACTGGC
CCCGCCCGTGGCCTCGTGTCCGCAGGGCGCCAGCGCCGTCCGGCGGCCCCGCCGACAGCAGCTGGCGGGTGT
GGAGACCAGGCTCTGACCCCGCCATGCATGCAGCGCCACCTGGAAGCCGCGCGGCGCCTTGGTTTTTTGTTTG
GTTGTTTCCATTTTCTTTTTTTTCTTTTTTTTTTAAGAAAAAATAAAAGGTGGATTG

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FIGURE 5115

GTCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCCATGCTGCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGCCCGCTCGTCCGCCACGCCCGTGCTATG
CCGAGGCCGCCGCCGCCCGGCTGCCGCTCTGGCCCCAACAGATGTCCTTCACCTTCGCTCTCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCC
ACGTGCCACGCTGCAGGTCTGCGGCCGGGGCTGGTCGTGGTGCATGCAGAGGACGGCACCACTCCAAATACT
TTGTGAGCAGCGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAACCTGGAGAAGGCCAGGCCGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAGTAGGCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGCTGGGCAGGGATGCCAGGTGGGCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCCTCTCAAGATCCCCCAGCCTGACGGGCCGCTTACCATCCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCGCCCATTAAGACCCGGAAGCC
TGAAAAAAAAAAAAAAAAA

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FIGURE 5116

MLPAALLRRPGLGRLVRHARAYAEAAAAPAAASGPNQMSFTFASPTQVFFNGANVRQVDVPTLTGAFGILAAHVP
TLQVLRPGLVVVHAEDGTTSKYFVSSGSIAVNADSSVQLLAEAEVTLDMLDLGAAKANLEKAQAEELVGTADEATR
AEIQIRIEANEALVKALE

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FIGURE 5118

MSLAIHSTTGTRYDLAVPPDETVEGLRKRLSQRLKVPKERLALLHKDTRLSSGKLQEFVGDGSKLTLVPTVEAG
LMSQASRPEQSVMQALESLTETQPPAAPGPGRAGGGGFRKYRFILFKRPWHRQGPQSPERGGERPQVSDFLSGRS
PLTLALRVGDHMMFVQLQLAAQHAPLQHRHVLAAAAAAAAAARGDPSIASPVSSPCRVPSSAARVPPVPTSPSPAS
PSPITAGSFRSHAASTTCPEQMDCSPTASSSASPGASTTSTPGASPAPRSRKPGAVIESFVNHAPGVFSGTFSGT
LHPNCQDSSGRPRRDIGTILQILNDLLSATRHYQGMPPSLAQLRCHAQCSPASPAPDLAPRTTSCEKLTAAPSAS
LLQGQSQIRMCKPPGDRLRQTENRATRCKVERLQLLLQKRLRRKARRDARGPYHWSPSRKAGRSDSSSSGGGGS
PSEASGLGLDFEDSVWKPEVNPDIKSEFVVA

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FIGURE 5119

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTGCGTCAGGGACCTGCCCGACTCAGTGCCCGCCATGGCA
TCAGATGAAGGCAAACCTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAGTAAAAACCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTTATTTCCACTTTTCGTAGTCATTTTCGGTTCGTATCTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTCTTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAACATTTTGA
AAAGCATTTACTTTTTTTGACCACGAGCCATGAGTTTTCAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTAGTGGGGTTGGCCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACCTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAGACCGTGTGAAATG

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FIGURE 5121

MAVLSAPGLRGFRILGLRSSVGPVQARGVHQS VATDGP SSTQPALPKARAVAPKPSSRGEYVVAKLDDLNVWAR
RSSLPMTFGLACCAVEMMHMAAPRYDMDRFGVVFRASPRQSDVMIVAGTLTNKMAPALRKVYDQMPEPRYVVSM
GSCANGGGYYHYSYSVVRGCDRIVPVDIYIPGCPPTAEALLYGILQLQRKIKRERRLQIWYRR

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FIGURE 5122

CCCCGGCCCAAGCCCCCTGCAGGGAGCGGGCCCGGGCGGCGCGATCGAGGTCGGGTGCGCGTCCAGCCTGCA
GCATGAGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGCCG
CGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCTATA
TGCACGCGCTGGCCGCCGCCCTCCTCCAAAGGGGGCCGGGTCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCATTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGGGCGTCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGG
CCGGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCT
TCCCACAGATGATCAGCCCCCTGGTGACCAAAGGCTGAGCCCCCACCCCGGCCCGGCCACACCCATGCCCTCCTC
CGTGCCTTCTGTGAGGGGTCCAGGGGTGTCGACACAGCCCTGGGCTGATCCCAGCTGTGTGTACACCAGAAGCTT
TCCCGGCTTCTGTGAGGGGTCCACACAGCCAGGGCTGATCCCAGCTGTGTGTACACCAGCAGCTTTCCAGCT
TCTCTGTGAGGGTCACTGCTGCCCACTGCAGGGTCCCTGAGGTGAAGTAAACGCCGGCGCTGGGCTTGCCAGTC
GGCAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5123

MSAPSATPIFAPGENCSPAAGAAPAYDAADTHLRILGKPVMERWETPYMHALAAAASSKGGRVLEVFGMAIAA
SKVQEAPIDEHWIIECNDGVFQRLRDWAPRQTHKVIPLKGLWEDVAPTLPDGHFDGILYDTYPLSEETWHTHQFN
FIKNHAFRLKPGGVLTTCNLTSWGELMKSYSIDITIMFEETQVPALLEAGFRRENIRTEVMALVPPADCRYYAF
PQMITPLVTKG

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FIGURE 5124

CCCCGGCCACAAAGCCCTGCAGGGAGCGGGCCCGGGCGCGCGATCGAGGTCGGGTCGCCGTCCAGCCTGCA
GCATGAGCGCCCCAGCGCGACCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCGCGTGGGGGGCGGCGCCCG
CGGCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCTATA
TGCACGCGCTGGCCGCCGCCCTCCTCCAAAGGGGGCCGGGTCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTTCGCCTGCTGAAGCCGGGGGGCGTCCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGTGCGCCACCTGAAGTTCCCCATGGGT
CTCCAGGAAGTGACCTTGGATGGGGGTGGGAAGGGGCTGCTGGAGCCACCTTGCTACCTGGGGAGGGTCCCTTCC
TGACCCCTGGGTGGGCTGGACTGTGCTGGTTTATTAGAAATCAAAGTCCTTTGCCTGGCGCAGTGGCTGCCAG
GAGCAGTGGCTCAGGTCTATAATCCCAGCACTGTGGAAGGCCGAGGTGGGCAGATTGCTTGAGCCTAGGAGTTCA
AGACCAGCCTGGGCTACAGAGCAAGACCTCATCTTCTCTAAAAAATAACAAAAA

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FIGURE 5125

MSAPSATPIFAPGENCSPA WGAAPAAYDAADTHLRILGKPVMERWETPYMHALAAAASSKGGRVLEVGFMAIAA
SKVQEAPIDEHWIIECNDGVFQRLRDWAPRQTHKVIPLKGLWEDVAPTLPDGHFDGILYDTYPLSEETWHTHQFN
FIKNHAFRLLKPGGVLTTCNLTSWGELMKSYS DITIMFEVRPPEVPHGSPGSDLGWGWEGAAGATLLPGEGPFL
TPWVGWTVLVHLEIKVLCLAQWLP GAVAQVYNPSTVEGRGGQIA

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FIGURE 5126

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAGATGGCGAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCGTAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAGTAATGGCTCAGCTAATAAAGGCGCACATGACTCC

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FIGURE 5127

MAVEQKKKRTFRKFTYRGVDLDQLLDMSYEQLMQLYSARQRRRLNRGLRRKQHSLLKRLRKAKKEAPPMEKPEV
VKTHLRDMIILPEMVGSMVG VYNGKTFNQVEIKPEMIGHYLG EFSITYKPVKHGRPGIGATHSSRFIPLK

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FIGURE 5128

AGCATGCAGTTCGGTCACCTGAGGGTGCTGGGGCCGTGGTTTGAGCTTCATGGGCTCAGGTCCATGGCCGTTGAG
TGTGGCGAAACTGAGGCACGCTGTGCGGGGGACGGGGGGCGCTCACAGAAGGTAGGGGGCCTCCTGTGCCTTCAT
CCAGGCACTGCCCCGGCCTTTCCACCCCTGTTGCTAAAGCAGGTGATGACAGAGGTGATTTGATCAGCCCAGACCC
GTGCGGCACGTGGAGCCTTCGTCCGTGGGAGACCACACTGCCGAGGGGCAGGCCAGAGCCGAGGGGGCCCTGACG
CTTCTCTGAGTGACCCTGAAGTCGGTGCTGCTTCAGCCCTGCTGCACTGGGCTTGCAATCGTGGGGGAGCAGGGA
GCCATACGTAGTTTTCTGCTGAATGTGGGAGTCACCAGGACGTCAATGCCACCTCTCACCTTCGCCACCCCTGCC
TCCCTAAGTGTGTGCTCCAGGAGGTTGCACGGCCCTGGAGAGGTTTTCGGTGGCGGGCTTGTTCGCTCTCTGGC
TTCCAGAGACAGCAGGAATGAGAGCCAGGCCAGCTCAGTGGAGTCCATCCCGGTGGGTGCCACGGCTTTTGCAGG
AATGGAAGCCCCGCCCCAGGAGGGCCACTGCTGGCGAGGCTTGAGCTCTTCTGTGACCCGATCCCCCTGGTCA
CACGCTTTGTAAAGCGGGTAGCCTAGAGCTGGAAGCCCTCCTGCCACCCAGCCACTGTGCCTCTCCCAGCTGA
TGGACGAGGAAGCCTCCATTACTTGATTTTTGTTTTTATTTATTTTGTAGACAGGGTCTCATTCTGTACCCAGG
CTGGAGTACCGTGGCAGCATCATAGCTTATTGCAGCCTCGGCTCCCAGTCTCAAGCGATCCTCCTGCCTCTGCC
TCCAGAGAAGTAGGGACCACAGATGCGTGCTACCACGCCAGCTAATTTTTGTATTTGTATTTTTTGGTAGAGAT
GGGGGTGTCACTATGTTGTCCAGGCTGGTCTCTAACTCTTGGGCTCAAGTGTTCCCTCCCGCCTCGGCCTCCCAA
GTGCTGGATTACAGGCGTGAGCCACCACACCTGGCTGCATCCGTATGTTAAGAAGACCCCCGGCTGGCAAGCTCA
CTCGGGGACTGCAGGGAACCTGCCCTTTGGGGGCAGTAGTGAGGGGTGCCAGGAGGATGGGGTGGTCAGCAGG
CAGTGATGCTGCTGTGCTCTCAGACCCCCAGTTCCCTTCAGGATGATGGAGGATGCCGAGGCCCCGGGAG
AGCAGCTCTACCAGCAAAGCCGGGCCCTACGTGGCTGCCAACCAGCGGCTGCAGCAGGCGGGCAACGTGCTGAGGC
AGAGGTGTGAGCTCCTGCAGCGAGCCGGCGAGGACCTGGAGCGGGAGGTGGCCAGATGAAGCAGGCAGCATTAC
CGGCAGCCGAGGCTGCCCTCCTCAGGCTGACCTCTCGGGGCTGCAGGCTTGGGCAGCGCACAAAGGTGGCCTGCAC
CCAGGCTTTCCCTGGGGGTCCGTCCGCCCCAGACTGGCATTCACGGGGTCCCAGCCCCAGTGGGTGTTGACACAG
GCGCCCCCTCCTGATGCTGGGGCTGCGGTTTCATCCGTCTCATTCATGCCGAGTTGGTGGGACCCACCCAGCTG
GCTCCGTCTCGTGACCTGAGGGCCCCACTGGGGTCTGGAAAGAGGATAGGGACATTATTGCTGTACTGTGATT
CTGTCTGTCAGCTCACAGTGGCCGTGCTCTGCAGTGGGGCCCCCTGGGAGCAGGTGCCACCTCCTTCTCTCCCGG
GCAGGCACTCGCCTGTCCACTTCTGAGTCCAGGTGTTGGGATCGAGGTGTTAACTGTGATTCCATCCAGCGAGTG
CCCACCAATGTCAGAGCAGCCCCAGGGGCCAGCCTGAGCCCCCTGACCCCACTTCTTCTGGGCCCCGGGCTCCTC
CCACAAGCCACGTTGATCTTCACAACGACCCTGGGCCGTGGGGTCACCCAAGAGAAGCAGCCCTGAGACCCAGC
CAGGCTGGGCCTAGCTCCACGGCACGGGTGTCTCCAGCCACTGCCCTTGCTGGAGGACCGCTGTGAGTCACTGG
CCAGGAGCCCAGGGTGTCTGAGTCTCATAGCCACCCTGCCAGCTGCAGCAGGTCTGGGCCTGCTTCCCTGCGG
GTTCTGGCCCTGGGGGAGGGGGCGTTAGTGCGGCGGAGGGTCTTGCCAAAGGCTTTTCATCCTAAATAGCAACTT
GAGTGGAAACCTGGGCAAGGCGGCCAGAGGCTGGGCCCTGCACATAAAGCTTTTCGTGTGTGTC

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FIGURE 5129

MGSKAKKRVLLPTRPAPPTVEQILEDVRGAPAEDPVFTILAPEDPPVPFRMMDAEAPGEQLYQQSRAYVAANQR
LQQAGNVLRQRCELLQRAGEDLEREVAQMKQAALPAEEAASSG

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FIGURE 5130

CGCGGGGAAACTGAGGCAGAGAGATGGGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCTGCCCCACCCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCACGCCCTGGGAACCCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGGTGAAACCCCGTCTCTGCTAAAAATGAAAAACAAAAAC

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FIGURE 5131

GCGGGCCGAGGAGCCGGGCGCAATGGAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCGAGAAGGTGCGGGCTGTCGGCCGGCCACAGGGATGTCTTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCGCGACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCTGCGCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCCTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGAGAAAGCGGTGGACCAGCCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCCGCCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGACGAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCGACCCGGACCCGGAGATGGAGCACGTCTAGGG
CAGGTGCTGCGGGGGCCACGGGGGCTCCCTGGAGTGGGTCTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCTTTCCAGAGGCCCTGCCGAGAGCCCGTGTCTGCTGCTGGAGCCGCCTGCAGAC
GCGGTCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCAGCCTTGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCTCGGCCCGTCCCCACTTCCCGGGGCTCGGGGCACACAGCTGGGGCTGCCCCACCCGAAA
GACCCTCCACGCTCGTCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCCTGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGACGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCTGAGTGGCATGCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCCGGCGCTGCCAGAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGCGCACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCGAGACGCTCCTCGAGGTGCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCCTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCTGGCCCTGCTGCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCAGCGAGCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCCAGGGGGACTGATGGGCAGAGTCGCCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCTGTGCTGCCCTGTGAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGGACCACGCTTCTCTGAGGTGGTGCCCACTGGCTGGGACCCCTTTGCAGTGGGGT
GGCCTCCCCCTGTCTGCTGCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

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FIGURE 5132A

GCCTGAGGTGCCCGCCCTGGCCCCAGGAGAAATCAACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAG
CTCAGTGACCTCCTGGACTTCAGCATGATGTTCCCGCTGCCTGTACCAACGGGAAGGGCCGGCCCGCCTCCCTG
GCCGGGGCGCAGTTCGGAGGTTTCAAGTCTTGAGGACCGGCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGC
AGCTCCCTCCTTTGACCCACAGCCGGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCA
TCCACATTCTTGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTGGGAGAGACGCA
GGCGTGGGCGGCCCTGACTCAGGCTGGCTTCTGTGAGGCGAGCTGGCCCTCAACAGCCCCGGGGCCCTGTCCCCT
TCGGGCATGAAGGGGACCTCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACGGCAGC
CTAGACACGCAGCCCAAGAAGGTCCGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACCCAGCTCAGGT
GAGGACTACGGCAGGGATGCCACCGCTACCCGTCCGCCAAGACCCCCAGCAGCACCTATCCCGCCCCCTTCTAC
GTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCCGGGCCAGGCGGGCTTCGGGCCCATGCTG
GGTGGGGGCTCATCCCCGTGCCCTCCCGCCCGGTAGCGGGCCCGGTGGGCAGCAGTGAAGCAGCAGCAGCAGTTT
GGTGGCCTGCACAGCAGCAGCGTATGGGCTACCAGCTGCATGGAGCAGAGGTGAACGGTGGGCTCCCATCTGCA
TCTCCTTCTCCTCAGCCCCCGAGCCACGTACGGCGGCGTCTCCAGCCACACGCCGCTGTGAGCGGGGCGGAC
AGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAGCTCCGGGGATGCCCTCGGCAAGCACTGGCCTCGATCTAC
TCCCCGGATCACTCAAGCAATAACTTCTCGTCCAGCCCTTCTACCCCGTGGGCTCCCCCAGGGCCTGGCAGGA
ACGTCACAGTGGCCTCGAGCAGGAGCCCCCGGTGCCTTATCGCCAGCTACGACGGGGGTCTCCACGGCCTGCAG
AGTAAGATAGAAGACCACCTGGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGCATG
CACACGCTGCTGCCTGGCCACGGGCGCTGGCCTCAGGTTTACCGGCCCCCATGTCACTGGGCGGGCGGCACGCA
GGCCTGGTTGGAGGCAGCCACCCGAGGACGGCCTCGCAGGCAGCACCAGCCTCATGCACAACCACGCGGCCCTC
CCCAGCCAGCCAGGCACCCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
ACGGCGGGCCGCGCAGCGAGATCAAGCGGGAGGAGAAGGAGGACGAGGAGAACACGTGAGCGGCTGACCACTCGGAG
GAGGAGAAGAAGGAGCTGAAGGCCCCCGGGCCCGGACCAGCCAGACGAGGACGAGGACGACCTTCTCCCCCA
GAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTGCGGGTCCGTGACATC
AACGAGGCCCTTAAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGAAGCCCCAGACCAAACTGCTC
ATCCTGCACCAGGCTGTCTCGGTCACTCTGAACTTGGAGCAGCAAGTGCAGAGCGGAACCTGAATCCCAAAGCA
GCCTGTTTGAACGGCGAGAAGAGGAAAAGGTGTGAGGTGTGGTTGGAGACCCCAAGATGGTGCTTTTCACTCCC
CACCCAGGCCTGAGCGAAGCCCAACCCCGCCGGGCACATGTGAAGGTATGCCTCCGTGGGACGAGCCACCCG
CTTTCAGCCCTGTGCTCTGGCCCCAGAACGGCCACTCGAGACCCCGGGCTTCATCCACATCCACACCTCACACAC
CTGTTGTCAGCATCGAGCCAAACCAACCTGACAAGGTTTCGGAGTGATGGGGGCGGCCAAGGTGACACTGGGTCC
AGGAGCTCCCTGGGGCCCTGGCCTACCACTCACTGGCCTCGCTCCCCCTGTCCCCGAATCTCAGCCACCGTGTCA
CTCTGTGACCTGTCCCATGGATCCTGAAACTGCATCTTGGCCCTGTTGCCTGGGCTGACAGGAGCATTATTTTTTT
TTTCCAGTAAACAAAACCTGAAAGCAAGCAACAAAACATACACTTTGTGAGAGAAGAAAAAATGCCTTAACTAT
AAAAAGCGGAGAAATGGAACATATCACTCAAGGGGATGCTGTGGAACCTGGCTTATTCTTCTAAAGCCACCA
GCAAAATTGTGCCTAAGCGAAATATTTTTTTAAGGAAAATAAAAACATTAGTTACAAGATTTTTTTTTTCTTAAT
GTAGATGAAAATTAGCAAGGATGCTGCCTTTGGTCTCTGGTTTTTTTAAGCTTTTTTGCATATGTTTTGTAAGC
AACAAATTTTTTTGTATAAAAGTCCCGTGTCTCTCGCTATTTCTGCTGCTGTTCTTAGACTGAGCATTGCAATTC
TTGATCAACCAGATGATTAAACGTTGTATTAAAAAGACCCCGTGTAACCTGAGCCCCCCCCGTCCCCCCCCCCC
CCGGAAGCCACTGCACACAGACAGAACGGGGACAGGCGGCGGGTCTTTTGTTTTTTTGATGTTGGGGGTTCTCTT
GGTTTTGTCATGTGGAAGTGATGCGTGGGCGTTCCCTGATGAAGGCACCTTGGGGCTTCCCTGCCGATCCTCT
CCCCTCAGGAAGGGGACTGACCTGGGCTTGGGGGAAGGGACGTGAGCAAGGTGGCTCTGACCTTCCAGGTGACT
CTGCCAAGCAGCTGTGGCCCCAGGGCTACCTACACAACGCCCTCCCCAGGCCCCCTCAAGCTGCTCTCCCTTG
GAACCTGCACAGCTCTTGAAATGGGGCATTTTTGTTGGGACCAGTGACCCCTGGCATGGGGACCACACCTGGAG
CCCGTGTGGGGACCTCCTGGACACCTTCTCCTTCACTCCTTTGCCCGAGGACCCAGGCTCATGCTCTGAACCT
CTGGCTGAGAGGATGCTGCTCAGGAGCCAGCACAGGACACCCCCACCCACCCACCATGTCCCCATTACACCA
GAGGGCCATCGTGACGTAGACAGGATGCCAGGGGCTGGCCAGCCTCCCCCAATGCTGGGGAGCATCCCTGGGCC
TGGGGCCACACCTGTGCCCTCCCTCTGTGTGGTCCAAGGGCAAGAGTGGCTGGAGCCGGGGGACTGTGCTGGTC
TGAGCCCCACGAAGGCCTTGGGCTGTGCGTCCGACCCTGCTGCAGAACAGCAGGGGTGTCCCTCGGGCCCATCT
GTGTCCCATGTCCCAGCACCCAGGCCTCTCTCCAGGTCTCCTTTTTCTGGTCTTTTGCCATGAGGGTAACCAGCTC

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FIGURE 5132B

TTCCCAGCTGGCTGGGGACTGTCTTGGGTTTAAAACTGCAAGTCTCCTACCCTGGGATCCCATCCAGTTCCACAC
GAACTAGGGCAGTGGTCACTGTGGCACCAGGTGTGGGCCTGGCTAGCTGGGGGCCTTCATGTGCCCTTCATGCC
CCTCCCTGCATTGAGGCCTTGTGGACCCCTGGGCTGGCTGTGTTTCATCCCCGCTGCAGGTCGGGCGTCTCCCCC
GTGCCACTCCTGAGACTCCCACCGTTACCCCCAGGAGATCCTGGACTGCCTGACTCCCCTCCCAGACTGGCTTG
GGAGCCTGGGCCCCATGGTAGATGCAAGGGAAACCTCAAGGCCAGCTCAATGCCTGGTATCTGCCCCCAGTCCAG
GCCAGGCGGAGGGGAGGGGCTGTCCGGCTGCCTCTCCCTTCTCGGTGGCTTCCCCTACGCCCTGGGAGTTTGATC
TCTTAAGGGAACCTTGCCTCTCCCTCTTGTGTTTTGCTCCTGGCCCTGCCCTAGGTCTGGGTGGGCAGTGGCCCCAT
AGCCTCTGGAACCTGTGCGTTCTGCATAGAATTCAAACGAGATTACCCAGCGCGAGGAGGAAGAAACAGCAGTTC
CTGGGAACCACAATTATGGGGGGTGGGGGGTGTGATCTGAGTGCCTCAAGATGGTTTTCAAAAAATTTTTTAA
AGAAAAATAATTGTATACGTGTCAACACAGCTGGCTGGATGATTGGGACTTTAAACGACCCTCTTCAGGTGGAT
TCAGAGACCTGTCCTGTATATAACAGCACTGTAGCAATAAACGTGACATTTTATAACG

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FIGURE 5133

MNQPQRMAPVGTDKELSDLLDFSMFPLPVTNGKGRPASLAGAQFGGSGLEDRPSSGSWGSQDQSSSSFDPSRTF
SEGTHTESHSSLSSTFLGPGLGGKSGERGAYASFGRDAGVGGLTQAGFLSGELALNSPGPLSPSGMKGTSQYY
PSYSGSSRRRAADGSLDTQPKKVRKVPPGLPSSVYPPSSGEDYGRDATAYPSAKTPSSSTYPAPFYVADGSLHPSA
ELWSPPGQAGFGPMLGGGSSPLPLPPGSGPVGSSGSSSTFGGLHQHERMGYQLHGAEVNGGLPSASSFSSAPGAT
YGGVSSHTPPVSGADSLGSRGTTAGSSGDALGKALASIYSPDHSSNNFSSSPSTPVGSPQGLAGTSQWPRAGAP
GALSPSYDGGLHGLQSKIEDHLDEAIHVLRSHAVGTAGDMHTLLPGHGALASGFTGPMSLGGRHAGLVGGSHPED
GLAGSTSLMHNHAALPSQPGLPDLRPPDSYSGLGRAGATAAAASEIKREEKEDEENTSAADHSEEEKELKAPR
ARTSPDEDEDDLLPPEQKAEREKERRVANNARERLRVRDINEAFKELGRMCQLHLNSEKPQTKLLILHQAVSVIL
NLEQQVRERNLNPKAACLKRREEEKVSGVVGDPMVL SAPHPLSEAHNPAGHM

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FIGURE 5134

CAGCAACTCCGTGGCCAAGCTGAGGAGGCCAGGGCCCGCTCCTGCTTCTCCACGGGTGTGCTCTGTGGCCCCCG
ATGGAAGGGGGAAGGATCCAAGCAGGCCCTCCCTGCCAGGGCAGAAGATTCTGGAGTCCTGGGCGTTGCCTGTG
AGTGTTCTGAGAGATAAGGGCCCCGCCGCCGCCCGGGACCAAGGTCTCGTCCCGTCCCTTGCTGCGCCGG
GAACTCCTGCCCCACGCAGGCTTCTGGTCTCCACACTGGGCTTGTTCCTGGGTGATGAGATTGGGCTCCACCCTC
ACGGGCTGCCAGCCTCCTGCCGATGGGTGAGCCTCTGCTGCTGCTTCAGCAAAGGGCGGCCCACTTCCCACAC
TGGCAGGTGGGGACAGGGAGACCCTGGGCCCTCCCCAGAGCTCATGGGTAGCTTCCACACCCTCATGCTGTCATG
AGCCTTTCTCACAGGGTCAGAAGAGTCTGCATCTGACACAGAGACCCAGTCCACATAGTCAGGGCTGGGCCAGA
GGGAGGGACTTGGGGCTGATGGGGAGGAGGCTCGGCGTGAGAGTGAGGTCTTTGCCCAAGGAGGGTATGAAAGCT
GGGGCTTTAGTGGGTGGGTAGGAGTTGGCCAGCAGAGAGCCGACGGAAGAGTTAATTTAAGTTTATGGACCTGTA
AGTGCTCCGAGTCCAGGGTGTCTGGGTGTTAGCTGCTGACTGGTGTCTCATGAGTCGGGCTGGGTGAGGCTGG
GTTAGGAAGGGTTCCACAAGCCCCCGGGTCCACTGAGGTTTGCCCCTGAGATGATGAACCGAAGCTTTTAGAGC
TGGGCAGGCGTGAGGGTGACCCATAACTCTCTCTGCTCCTGCCTGCAGGTCTTGAGGACCGGCCAGCTCAGGCTC
CTGGGGCAGCGGCGACCAGAGCAGCTCCTCCTTTGACCCAGCCGGGTAGGAGTCCCCGTGAGGCCTGAGACCCT
GAGTTTCCTGTCCCCAGAGTTGGGGGCGAGGGGTGTGGGAAACTGAGGCTGAGAGAAGGGGCCAGCCTTCCAGG
GGTTTGACTGGGGGACATGGGTTTGAGTCCTGCCTCTCCAGCTGTAATGCGGGGTGGAGGGGGGGCCTGTGAAG
CCCCAGCACCTCTCATCCCCACCCATCTCCCCTAGACCTTCAGCGAGGGCACCACCTTCACTGAGTCGCACAGC
AGCCTCTCTTCATCCACATTCTGAGGACCGGGACTCGGAGGTGAGTGCCTGGCCTGGTGCCTCCCTCTGCTGTG
CACAGATGTGCAGACGTGGGCCTTGGCATGGTCAGTGCACGCACAGCGCCAGGCAAGTCCCCAGCGTTACCCAG
AGGGTGTGGACAGCCGAAGCCTCTGCCCCTCCTGGGAGCAGCTGCGGGGAGGTGCAGGGGACGTGGCCCCGACTC
CCTGGCACGGCACTCTGCAACTAGGCTTCCCCGCCTGAGCGTAGAGGCAGGGAGGCCGTTCAGACCCCCACTTCC
TCCCTGGGATTTCTGCAGGGCTCCTCCTGCTTCCCGGGGAGGGGTCAGCCGGGCTGGCCTGTGCCCGCTGGGAAG
GAGGCGTAGGAGTTCTGGAGACTCGGGAGGGCGGCCAGAGTGTGCGGTGGTCAGAGCCCATGCCCTTCCGCAGAC
CGCCCGCCCGCCCTCTTTCCCTGGGGGGCCCTCCTGTTAACCAGAGAGAATCGTGACTCAGGTTGGGCTCGGTGGC
TCACGCCTGTAATACCAGCACTTTGGGAGAGCGAGGTGGGTGGATCACCTGAGGTGAGGAGTTTGGAGCCAGCCT
GGCCAACATGGTGAAACCCCGCTTCTACCAAAAACAAAAATTAGCCGGTCATGGTGTTGGATGCTTATAGTGC
CAACTACTCAGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGCTGCAGTGAGCCGAGATCACGC
CATTGCCCTCCAGCCTGGGTGATGGAGCGAGATTCCATCTT

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CGGCGCGCGCGCGCGACCGCGCGCCAGTGAAGGGGGCCCTGGGGGCCCGGGCGGCTCCGGGCGGGGGCCCCCGCGCGG
 GACGGACCATGCTACGCTCCACTGGCTTCTTCCGGGCCATTGACTGCCCTATTGGTCTGGGGCGCCGGGGGGG
 CCTGCCGGCGGCCCTACTGCCACTTCCGGCACCGCGGGGGCCCGGGGCTCCGGCGCGCCCGGTGACGCGCGGAGAG
 CGCCCCCGCAGCAGGGCTGGGTTACGACCCCTACAACCTTGAGCTGCCCAAGCCCCCGCGCAGAGGGAGAATG
 GCACCTTGGGCCTGGGGGAGGAGCCGCGCCCGGATGTGCTGGAGTTGGAGCTGGTCAACCAGGCCATCGAGGCCG
 TGCAGCTGAGGTGGAGCTGGAGCAGCGGCGCTACCGGGAGCTGCTGGAGACGACCCGTGAGCACCCTCCGCCG
 AGGCCCCCGCCCTGGCGCCCCGCGGCCCAACGCCAGCCCCACTGTGGGGCCCGGACGAGGATGCCTTCCCACTGG
 CCTTCGACTACAGCCCCGGCAGCCACGGCCTATTAAGCCCTGATGCCGGCTACCAGCCCACCCACTGGCCGCCG
 CTGCCGAGCCGGGCAGCAAGTACTCGCTGGCGTCCCTGGACAGGGGTGAGGGCAGAGGTGGAGGGGGTGGCGGT
 CCCTGGAATACGTCCCCAAGGCTGTGAGCCAGCCCCGGCGGCACAGCCGCCCGCTTCCAGTGGAAGTACGTGG
 TGGACAACCTCCAGGCCACCCACAGACCTGGAGTATGACCTCTCTCCAACCTACTCGGCCCGGCACCTCAGCAGGG
 CCAGCTCCCGGGATGAGCGGGCCGCCAAGCGGCCCGGGGCTCCCGCGGCAGTGAGCCCTACACACCTGCTCCCA
 AGAAGCTCTGTGACCCCTTTGGCAGTTGCGATGCAAGGTTCTCAGACTCAGAAGATGAGGCGGCCACGGTCCCAG
 GTAACGAGCCCACCACGGCCAGCACCCCAAAAGCCAGGGCCGACCTTGAGATCAAGGCCACCGGGCAGCCACCT
 CCAAAGAGGGCTGGAGGCCGAGGGGGGCGGCTTGCGGGAGACCAAGGAGACGGCCGTGCACTGCGACGTGGGGG
 ACCTCCAGCCGCCCCAGCCAAGCCGCTTCCCAGCCAGGTCCAGTCTCAGGATGGGGGCTGCCCAAGG
 AGGGAAAACCAAGAAGAAAAAACCGGGGCCACCTGCCCCAGCTGCAAAGACGGGGCCAGGGGAAGGACA
 AGACCAAGGACAAGGGCCGAGGGCGGCTGTGGAGAAGCCCCGTGCGGACAAGAAGGGCCCGCAGGCCAGCAGCC
 CCGGCGCAAGGCAGAGCGGCCGGAAGGGACCAAGAAAGGCCATCTTCGGCCACTCTGTGGCCACCTCAGGGA
 AAGGGAGGCTGACCGGCCAGCGGGCGGCCGAGCCCCACAAGCGGGGACTCCCGACCGGCGGCCGGCAGAGGCC
 CACCCCGCCCCCTCAGCTGCCGACAGGAAGAGCACAAGGCCCGGTGGGGGAAGCTAGTGGAGCGGAAAGCC
 GCTCACTAGACGAGGGCGCCTCCCAAGGACGGCCCAAGCTGAAGAAGCGGGCCTGAGCCACGGCACCCTCTTTG
 GGGACGAGAGTGAGGACGAGGCCGCGAGGGCCAGGGGTGCCGAGCGTGTGGCCCTCTGCCCTCCCCAGCCTCAGCT
 CGGACTCAGACTCCGACTCAGACTCCAGCCTGGGCTTCCCGAGGGCGCAGGGGCCGCCCAAGCGGCTCAAGGCC
 CCCCCCCCCCTCCCCCGCCCCATCCTCCTCCTCCTCCTCCTCCTCCTCCTCCACCTCCAGCGCGGGGGCGGATGTGG
 ACTACTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCCATGGAGGAGTGCTGCGGATCTTCAACGAGT
 CCACCAGCGTCAAGACGAGGACAGAGGCCGCTGGCCCGGCAGCCCCCAAGGAAGAGAAGAGTGAGGAGAAGG
 GGCTTTCGGGTCTGACCACTCTGTTCCCGGGCAGAAGAGGAGGATCTCCACCTTTTCAAGCAAGGCCAGGAGG
 TGGAGCCCCCGAGGAGGGGTCCCGCGGTGCCCGCGGCCCGGCCCGGACGGCGCAGGAGGTGTGCTACCTGCGGG
 CCCAGCAGGCGCAGAGGGCATCGGCAGCTTGCTGCAGGCCCGCCAGGCTGGCAGAGAAGTCGCCCCCTCGTCC
 ACATTTCCGCCCTTGGCGAGAAGAGGAGGATCGCCACATCCCCAACCCCGCCTGGCTGCAGCCCCACAGGTG
 CCAAGAGGACCTTTCGGCCAGCGGCAGCCAGTCTTCAACGGCCCTGAGCCAGGTGGCCAGCAGCTGAAAACAC
 GCACATTGTGCGGGATGGCGTCCAAGACTACCACCACCATCATCCCTAAGCGAATCGCCACAGTCCATCCTTAC
 AGAGTTTAAAGAAACCCATTATCCCCAAAGAGTTTGGGGGCAAAGTCCCCACCGTCTATCCGCCAGCGCTATCTCA
 ACCTGTTCTATCGAGGAGTGTCTCAAGTTCTGTACCTCCAACCAGGAGGCCATAGAGAAGGCCTGAACGAGGAGA
 AGGTGGCCTATGACCGCAGCCCCAGCAAGAACATCTACCTGAATGTGGCCGTGAACACCTCAAGAAGCTCAGGG
 GCCTGGCCCCCAGCGCTGTGCCCGGCCCTCAGCAAAACAGTGGCCGCGAGGGTTGTGTCCACGAGGTGGTGTGG
 GGGGACAGTTGGCCGCCAAGACCAGCTTCTCGCTCAGCCGTCCAAGCAGCCCCCGGGTGGAGGACCTGAAAGGGG
 CTGCCCCTGTACAGCGCCTCAGGGAGTACCTGCTCACCAGGACCAGCTCAAGGAGAACGGCTACCCCTTCCCGC
 ACCCAGAGCGGCCCCGGGGGCGCAATCATCTTACAGCTGAGGAGAAGAGGGCCCAAGGACTCTTCTGCAAGGACCT
 GCTGCCGCTGTGGCACCAGTACCTCGTGTCTCTTTCAGGCCGTGCATCCGGGACGAGGAGTGTATTACCACT
 GGGGACGGCTGCGCCGGAACCGGGTGGCCGGAGGCTGGGAGACCAGTACATGTGCTGCTCGGCTGCCGCCGGCT
 CTGTCGGCTGCCAAGTCGCAAAGCAACACGTGCAGGATGGCCGGAAGGAGCGCCTTGAGGGCTTCGTGAAGACCT
 TTGAGAAAGAGCTCTCAGGTACACCCACCGGGATCTACGCCCTGGACTGCGAGATGTCTTACACCACATATG
 GCCTGGAGCTACGCGCGTACGGTGGTGCACAGGGAGTGCAGGTGGTTATGACACCTTCGTGAAGCCTGACA
 ACGAGATCGTGGACTACAACACGAGGTTTTTCGGGGGTGACGGAGGCTGACCTTGGCGACACAAGTGTACGCTGC
 GTGACGTCCAGGCCGTTCTGCTGAGCATGTTTCAGCGCTGACACCATCTCATCGGACACAGCTGGAGAGCGACC
 TCTTGGCCCTGAAGGTCTACACAGCACCCTGGTGGACACGCTGTGTCTTTCCTCCACCGCCTGGGCCCTCCCT

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FIGURE 5135B

ACAAGCGGTCCCTGCGGAACCTCATGGCCGACTACCTCAGACAGATCATCCAGGACAATGTGGATGGGCACAGCT
CCAGCGAGGACGCCGGCGCCTGCATGCACCTGGTGATCTGGAAGGTTGAGAAGACGCCAAGACCAAGCGATGAC
GCCTGCCCCGCTCCACCCGCTCTCCTGCCGTCCCGCTGGTCCTTAGCCCCATGCCTCTTCCAAAACAGTGCAA
TAAATCTCCGGTAACCCGTCCACCTGGCCGAGGCAGCCAGAGCAGCGGGATGAGCTGGCGGCCAGAGAACGCCC
AGCCCAGCCCACCCCGCTCACGTCTGCCGCACCCCTCCGCCGGTCCCCACCCTCTGCCCCCAGCCCTCTGGC
GTCTCTAGAAACTGCTGCTGATGGAGACCAGGACAGAGCCCGCCCCACCCGGCCCGCAGCCCTCTGCCCCCTC
CTGCCAGGCCCTCCCTCCCGGGTGGTGGCCGGCACCTCTGCTCCTCACGTGGGTGCGGGGGCGGGCTTGTCCCAG
GTTTGTTTGAGACAGTCTTTTTTTATTTTGTATTGTTATTTTTATTATTTTAAATTTAAACCTGATGACTTGCAC
AGCATCTTTCCCACCGGGAAGAGCGGGCCTGCTGCCTTCCCTCCTGCGGGGTGGGGGTGGGACAGACCCAGTGG
GGGCCAGGGCCACACTCAGCGCAGTGTGGGCTGGACCCGCCTCTGTGCTCCAGGGGCTGGCCGGTCTTCGGGGGC
GCCGGCTTCCACCACTCGCCGCCCCACCCCTGCACTCCGTGACCTCTGAGAACCCAGCTGGCCCCCTCGTTAGCCC
CAGGGTCTGCCGTCTAGAGGGAGCCCACCGGCCTCCGGACACTGTCTTCCCGCTAGAGCCCCGTCTCTCTGCG
GGGCTCTCCGGACCCCTTCCCCCTCACCTCCAGGCAGGACAGAATAAATGTTTGTATGGATTTT

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FIGURE 5136

MLRSTGFFRAIDCPYWSGAPGGPCRRPYCHFRHRGARGSGAPGDGGEAPPAAGLGYDPYNPELPKPPAQRENGTL
GLGEEPRPDVLELELVNQAIEAVRSEVELEQRRYRELLETTREHRS AEAPALAPRGPNASPTVGPDEDAFFPLAFD
YSPGSHGLLSPDAGYQPTPLAAPAEPGSKYSLASLDRGQGRGGGGGGALEYVPKAVSQPRRHSRPVPSGKYVVDN
SRPPTDLEYDPLSNYSARHLSRASSRDERAAKRPRGSRGSEPYTPAPKKLCDPFGSCDARFSDSEDEAATVPGNE
PTTASTPKARADPEIKATGQPPSKEGLEAEGGGLRETKETAVQCVDGLQPPPAKPASPAQVQSSQDGGCPKEGK
PKKKKTGAPPAPSCKDGAQGKDKTKDKGRGRPVVEKPRADKKGPQASSPRRKAERPEGTKKKPSSATPVATSGKGR
PDRPARRPSPTSGDSRPAAGRGP RPRLQLPDRKSTKAPSGKLVERKARSLDEGASQDAPKLKKRALSHADLFGDE
SEDEAAGPGVPSVWPSALPSLSSDSDSDSDSSLGFEAQGPPKRLKASPPSPAPSSSSSSSSSTSSAGADV DYS
ALEKEVDFDSDPMEELRIFNESTSVKTEDRGLARQPPKEEKSEEKGLSGLTTLFPGQKRRISHLSKQGQEV EFP
PRRGPAVPPARPPPTAQEV CYLRAQQAQRASASLLQAPARLAEKSPSVHISAPGEKRRIAHIPNRLAAAPTGA KR
TLAASGSQSSNGPEPGGQQLKTRTLSGMASKTTTTIIPKRIAHSPSLQSLKKPIIPKEFGGKVPTVIRQRYLNLF
IEECLKFCTSNQEAIEKALNEEKVAYDRSPSKNIYLNVA VNTLKKLRGLAPS AVPGLSKTSGRRVVSHEVVLGGR
LAAKTSFSLSRPSSPRVEDLKGAALYSRLREYLLTQDQLKENGYPFPHPERPGGAIIFTAEKRPKDSSCRTCCR
CGTEYLVSSSGRCIRDEECYYHWGRLRRNRVAGGWETQYMCCSAAAGSVGCQVAKQHVQDGRKERLEGFVKTFEK
ELSGDTHPGIYALDCEMS YTTYGLELTRVTVVDTDVHVVDYDFVKPDNEIVDYNTRFSGVTEADLADTSVTLRDV
QAVLLSMFSADTILIGHSLES DLLALKVIHSTVVDTSVLFPHRLGLPYKRSLRNLMA DYLRQIIQDNVDGHSSE
DAGACMHLVIWKVREDAKTKR

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FIGURE 5137

TGCAACGGGGCCCCCAGGGCAGCTAGGAGGTCCTCCCTCTCCTCTCCACCACCCCTGCTGCCCCCTCCCG
GGGTGGGGTTTGGGGGGGTGGAGTGGACTTCTGGGAGCCGGCCGGGGAAAGCACCCCTGCCCATCCCTGCAG
ATTGGGATGAAGTGTTTCAGACAGCCATAGAGGAGTCGGGGGTTGACACGGCCCTGCCTCTCCCCACCCACCCC
CACCCACCGAAAGCCATGGGAGTAGTTTCAAGGAAATGGGGGTGCAGCCAGCCACCCCTTTCGGGTACTCAA
TCTCAGGTGTCCACAAGTTCTGCGCACGGTAGGGGCTGCCTGGCCCCCAGACCTCGGGGGTAGAGCCAGGAGTG
GGGCAGCGTTAGGATGCCCGAGGGGCTCCAGGTGTTGCTTCTGAGACCTGGGATGGGGAGGGAGGGACCTCTG
GGTTCTTCCAAAGAACATTTGACTCAGTGGGGTCGGGAGGGAATCCTGGCTTATTTATTTTCTCTGTCTCGGG
TGTGGGGGCCCTAGCTCGCCCTCTCTGGGTGGGTGGGTGAGAGAGGCTGCAGGGGAGGCTGGCACC GGCGTTGGG
CCTCCAGTCCCTGCCTTGCTGACTTTGGCCGTTGCGGTATCACGTGACAATCAACTCTCCCTTAACGACGACTGC
GGCTGTTGGGCTGCGCTGCCCTCCCTGGCCTGCAGGTGGGGCCGTGGAGCCCATGCCCGCCGGGGTTGCAGGCTC
TTCCGGGCCTGGGCTGCAGCCTGGCCCGGCCCTGCTTCCCTGGCCTCCCTCTCTCTGGGTGCTTGGAAGAG
GTGGGTCTTGCCCCGTGGTTGAGGTCTTGCCCTCGTGGACTGGAAGCAGAGGGCTGGCTGTGCAGCCTCCTGGGGT
AGCTCGTTTTTTTTTGACCGGGTAGAATATTTTTTCAGGCACGGATTCTTTTTTTCTGGGCCCCCATGGGTGGT
CCGGCATCCTCAGGGGGTGTGAGTGTGTGTGGGGGGTCTCTGAGCTGAACCTGGGTGGGTGGGGACTTGTTCCT
CGGGGGCCACCTTTGTGTCTTGTTCAGCGGTGCTCCTGCTGTGGCCTGGGTGTCATTTCTCTTGGGGGGGGTAT
TGAGGACCCCCAGCCTGGAATGAGAAGGGTCCCCGTTCCATGTCAGACCCAGAAAGGTGGATCCCCCACTGTT
GGCTGCAGGAGGTTTTTGGTACCCCTTTTGTTCAGAACCGTCTGCTCTCGCTTGGGGACAGGGGGGCTTTG
GATGGCACTGGTGTGCACCTGGACCCAGCCCCGGCCTGGCAGGATCCAGGGATGGGTGCTGCGATCCTGGGGGG
AGGGAGGCAGGGGACGCCCTTCTGGAGCTGGGCTCGGAGGGTCTGCCCCATCCAGCCCTCGGCTCTCTGTGTTC
TCTGTCCCTAGCCTCAAACCTCTTCTGGCAGCGCTAGTGAGATGCCTTAGTCTGTGGGGGTGGGTGGGGGACTG
GGGCCCCGTTTTCTTTGTGAGTCTTGGTTGGCCCCAGCCCTGGCAGGGGCCTGTCTGGAGCAGGGGTAGGTAGG
GCTGTGGGTTCAGAACTCTATAACTGGGCCCCCTCTCCAGTGTCCAGGGGCTTGGAGAGACCTGCGCCACCCCT
CCACTCTCCAGGAGTCGCTGATCACTGGGACCTGGTTCAGCCGTTTGAGGGGAGGCGGCTCCGAGAGGCGTG
TGCTTTCCGTGGGTGGCGCCCTCCCCCGCCCTGCCTGGCCTCATCCTGTATTTAATTAATTAACAAGCCCCCT
TTTTAAACCCT

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FIGURE 5138

GCGGAGGGACCGACGGACGCACGGGCGGGCGGCCGGGAGCCATGGAGCGCGGCCCTGGGGCCCCGGGGCGCGGGC
CGGGGTGGGCTTCCCACGGCAGACATGGAGACCTGTGGTTGCGAGGCTCCCTGGGGCTCGGCTTGGACCGCGAT
GGGGCTGGGCCCTGGCCTCCTAACGGGGCTGCTGTCTGGGGCGGTAGCTGGGGGGCGCTCTCCCCCTGCCGCG
GACTCGGAGCACCCCCACCCCTCCCTGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCC
CGGCCTGGGCGGCGCCCCGCCATGAATGGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCGCGCCTGCC
CCGGCCGCATCGTGCCAAGCTCGCCTTCCTGCCGCCGAGGCCACCTACTCCCTGGTGCCTGAGCCCGAGCCGG
GGCCTGGTGGGGCCGGGGCCGCCCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGC
ACCTGACGGAGCGTGCCGACTTCCAGTACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCG
CCCGCGGCAACC GCCTCTCCTGCATGTATGTTGCTGCGTGCTGGTGCCAGACAAGGACACCAGGCTCAGGGAG
GCCATCCCCAGCTGGCATGGGTGGGCAGGCTGGGCGACTCCAACAACCCAGCGCCTGGTGGTTGCCTGCTGGGCG
AGAGCTGGGGCACAGGGGCTGCCCTGGCCTGCGGGTACATCCACCTTCTCGCCAGGTACACGGTCCTCTTCTCGC
ACGGCAATGCCGTGGACCTGGGCCAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCT
TCTCCTACGACTACTCCGGCTACGGTGCCAGCTCGGGCAGGCCCTCCGAGAGGAACCTCTATGCCGACATCGACG
CCGCCTGGCAGGCCCTGCGCACCAAGGTACGGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCA
CGGTGCCCACCGTGGACCTGGCCTGCGGCTACGAGTGTGCCGCGGTGGTGTGCACTCGCCGCTCACCTCGGGCA
TGCGCGTGCCTTCCCCGACACCAAGAAGACCTACTGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGA
TCACGTCTCCCGTGTCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACG
AGCGCTGCCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGT
ACCTGGAGCGCCTGCGTGCCTTCATCTCCAGGAGCTGCCCAGCCAGCGCGCCTAGCGGGCGGCCCAACCGGCCG
GACCTCAGCAATAAGGCGGCCCCCGGACCTCACCCCGCGCCGGCCCCCACCAGGGGCTGCATGTGGACCCCCCG
GGCGGCCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCC
TTTTGGAAGCAAGAAGAAAATACGTGAAAACGGAAATTAAAGATTTAAAAATTTAAAAA

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FIGURE 5139

MNGLSLSELCCCLFCCPPCPGRIAAKLAFLPPEATYSLVPEPEPGPGGAGAAPLGTLRASSGAPGRWKLHLTERAD
FQYSQRELDTIIEVFPTKSARGNRVSCMYVRCVPGARQGHQAQGGHPQLAWVGRLGDSNNPAPGGCLLGESWGTGA
ALACGYIHLLARYTVLFSHGNAVDLGQMSSFYIGLGSRLHCNIFSYDYSYGASSGRPSEPNLYADIDAAWQALR
TRYGISPDSIIILYGQSIGTVPTVDLASRYECAAVVLHSPLTSGMRVAFPDTKKTYCFDAFPNIEKVSKITSPVLI
IHGTEDEVIDFSHGLALYERCPKAVEPLWVEGAGHNDIELYSQYLERLRRFISQELPSQRA

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FIGURE 5140

ATGAATGGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCCGCCCTGCCCGGCCGCATCGCTGCCAAG
CTCGCCTTCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCCGAGCCGGGGCCTGGTGGGGCCGGGGCC
GCCCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGCACCTGACGGAGCGTGCCGAC
TTCCAGTACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCGCCCGCGGCAACCGCGTCTCC
TGCATGTATGTTTCGCTGCGTGCCCTGGTGCCAGGTACACGGTCCTCTTCTCGCACGGCAATGCCGTGGACCTGGGC
CAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCTCCACTGCAACATCTTCTCCTACGACTACTCCGGCTAC
GGTGCCAGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACGCCGCTGGCAGGCCCTGCGCACC
AGGTGA

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FIGURE 5141

GGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACAACTTATGGATTTTGACAAGAAAGGAG
GGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGGGCCGGAGCAGCCACGGCATCCGGAGCT
CGGGGACCAGCTCGGGGGTCTGATGGTGGGCCCAACTTCCGCGTCGGCAAGAAGATCGGCTGCGGCAACTTCG
GGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTATCAAATTGGAGCCGATCAAGTCCCGGG
CCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCACAGAGGGCGTCCCTCAGGTCTACTACT
TCGGTCCGTGCGGGAATTACAACGCCATGGTGTCTGGAGCTGCTGGGGCCAGCCTGGAGGACCTGTTGACCTGT
GCGACCGGACCTTCACGCTCAAGACGGTGTCTGATGATCGCCATCCAGCTGATCAGCGCATGGAGTATGTGCACA
CCAAGAGCCTAATCTACCGGGACGTGAAGCCCCGAGAACTTCTGGTGGGCCGCCCGGGGACCAAGCGGCAGCATG
CCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCGAGACCAAGAAGCACATCCCGTACCGCG
AGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGCACCTGGGCAAGGAGCAGAGCCGCGCG
ACGACCTGGAGGCGCTGGGCCACATGTTCTGTACTTCTGCGCGGCAGCCTCCCTTGGCAGGGGGCTCAAGGCCG
ACACGCTCAAGGAGCGGTACCAGAAGATCGGGACACCAAAACGCGCCACGCCCATCGAGGTGCTCTGCGAGA
TCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGCGCCTGGACTTCTTCGAGAAGCCCGACTATGACTACC
TGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTGACTATGAGTACGACTGGGCCGGGAAGC
CCCTGCCGACCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGCCTCAGCTCCGGGACAAAACCCAGCCGC
ACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGGACGACCCACAGGCCCGGCCACTCCAACG
CCCCGATCACAGCGCTGCAGAGGTGGAGGTGGCCGATGAAACCAAAATGCTGCTGTTTCTTCAAGAGGAGAAAGA
GAAATCGCTGCAGCGACACAAGTGAACCTGGGCGCGTGCAGCCCCCTGAATCTTCTCCGTGCAGCCCCCTTGGGG
CGCGACCTTGTGCGAGGGCCCTCGGGGGCCACCCACAGCGGCCAGGGCCAGACCCTGGCTGGAAGCCAGAACGCA
GACTGCAGGGGCGCGCCTGGCTCAGGCGGCCCCACCCCGGGACGTGGGGTCACTTCTTTCATGTAAGACTTTG
GCCGAAATTTCTACACCTGTGTCTAGTCTCCCTCCCAAGAGCATTAATATTTAAACAAGGAAAAGAGGAAAA
AAAAACAGAGGCGCCCTACCCCACTCCTGCCCCCTCCGTTTCTTTGCTGAAGTGAGTAGTGTGATCCTGGAGG
CCCCCGGCTTGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAAAGTCCAGCTTGTCTCCCTCGATCCAAA
GGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCTGGAGGGGTGCTGTGGAGCTGTCTTGCCAGGCCCTCCTGGG
AGGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCTCCCCGAAACCAAGGGGAAGGCAGGGGTG
GGCCGTGGCTGAAGCCGGCTCCCCAACC AAAATGCTGCACAAAGCTCGGGCGCCGCGGGCACGGCTGCTGCAG
TCTCTCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGCGGGTGTCTCTCGACGCACTTGCTCCCG
GAGGCTGCGCCCCGGCGCTGGAACCCGAGGTGGGAGGACCGGTTGGTGTACCCCTGCTCGGCCCTCAGCCCTGC
CGCGTGGGGCGCGTGGGCACGGAGCTTCTGCTCTGCTCCGACACCCGGCAAGCAGCCGGAGACAAAACGCCTT
AAAGCCCCCGGCCAGCCCTGCAGGTATATTGACGGGGCTGGGGGCGGCCCTGGACTGGCGGGCGGTTCCCCAG
TGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCCGTGCCAGGGCGGTGGCTGTGAGTCTAGT
TTTTGCTTTACCAAGTGTACAGAAATGGCATTACGTTTCTCTGATGCTCCCTTGAAGCCATAGAATTTAGGGG
TTTTTTAAAAAAATAAAAGAAAAATGAAACCAAAAAAAAAAAAAA

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FIGURE 5142

MDFDKKGGKGETEEGRMSKAGGGRSSHGIRSSGTSSGVLVGPVFRVGGKIGCGNFGELRLGKNLYTNEYVAIK
LEPIKSRAPQLHLEYRFYKQLSATEGVPQVYFPGCGNYNAMVLELLGPSLEDLFDLCDRTFTLKTVLMIAIQLI
TRMEYVHTKSLIYRDVKPENFLVGRPGTKRQHAIHIIDFGLAKEYIDPETKKHIPYREHKSLTGTARYMSINTHL
GKEQSRDDLEALGHMFMYFLRGS LPWQGLKADTLKERYQKIGDTKRATPIEVL CENFPEEMATYLRVVRRLDFF
EKPDYDYLRLKLF TDLFDRSGFVFDYEYDWAGKPLPTPIGTVHTDLP SQPQLRDKTQPHSKNQALNSTNGELNADD
PTAGHSNAPITAPAEVEVADETKCCCCFKRRKRKSLQRHK

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[illegible]

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FIGURE 5144

MAAGSGGRASCPPGVGVPGTGGSPGPSANAAATPAPGNAAAAAAAAAAAAAAGPTPPAPPGPGTDAQAAGAE
RAEEAAGPGAAALQREAAYNWQASKPTVQERFAFLFNNEVLCDVHFLVGKGLSSQRIPAHRFVLAVGSAVFDAMF
NGGMATTSTEIELPDVEPA AFLALLKFLYSDEVQIGPETVMTTLYTAKKYAVPALEAHCVEFLKKNLRADNAFML
LTQARLFDEPQLASLCLENIDKNTADAITAEGFTDIDLDTLVAVLERDTLGIREVRLFNNAVVRWSEAEQRRQLQ
VTPENRRKVLGKALGLIRFPLMTIEEFAAGPAQSGILVDREVVSFLHFTVNP KPRVEFIDRPRCCLRGKECSIN
RFQQVESRWGYSGTSDRIRFSVNKRIFVVGFGLYGSIHGPTDYQVNIQIIHTDSNTVLGQNDTGFSCDGSASTFR
VMFKEPVEVLPNVNYTACATLKGPDSHYGTKGLRKVTHESPTTGAKTCFTFCYAAGNNNGTSVEDGQIPEVIFYT

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FIGURE 5145

TATTTATAAACACACTCACAGGGCCAGATTGGGGCCACGGGGCCATAGTTGCCAGCCCGGCTTTAACTGCTGGTCC
TCACGTTAGTCTCACTGCCTCCTGCAGGGTGGGCATGTGGGTGTCGTGTTACGCAGCCCCCTTCCTCCACCCAC
AGACACGCTGGTGGCTGTCCTGGAGCGCGACACACTGGGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCG
CTGGTCCGAGGCCGAGTGTACGCGGCAGCAGCTGCAGGTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGC
CCTGGGCCTCATTGCTTCCCGCTCATGACCATCGAGGAGTTCGCTGCAGGTAACAGAGCTCGGGCTCAGGGGCT
GGTTTGGGAGGGGAGTGGCACACAGGTGGGCATCTGGGTACCGAGGATAGTGCCCCCGAGTTCACTGCGGAAAGC
CTGGCAGATGCCTGGCATATACAGATAGGAAGAAACCTGGCTTGTGAGGACGCGTCCACAGGGCCATCTGTTAGC
CCCGGCCCGGCTCTGTCCCCACCGTGCACACTGCCAGACCCCGCCTCTCGTGTCTGTCCAGCTGTTTTGGTGGCA
TCTTCCCAGGAGGGAAGGGAGTCCCCGTCTCGCGCCCTTGTGCTACCTGCTGGTGCAGGTACCACTGTCTGTGAC
GAGCTCAGGAGGGCTCTGACATGGCCGGGGTGGCTGTATGCGCCCGAGTGGGCCTTGGGGTCCCCTGCTGCAGG
GCCTGGGTTCCAGGGTGACGTGAAGGGGCAGCGCTAACGATGCCTCCTGCCCTCGTGGCTGCTCACTGCCTGACG
CCATCCAGCTCTGGAGCAAAACAGGCCTGGAACCTTCCAGAAGGGGCTGGGACAGAGCCCTGGGGCTGGTGCACA
CTCGCCGTCTGGCCTTCCCCAGGTCCACGCGGCC

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FIGURE 5146

GCTGGCGGGGCCCGGACAGAAGATGGTGCAGAAGAAACCAGCCGAAC TTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCCGCCAGCCAGCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCCGAGTGACAGCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAGATCATTGAGAAGCA
GCCAGGCCACATTTCGGAGCAGGGTTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTGTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACCTCAACGGGGACTGCTCCCCATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGTTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCTGCAACACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTGCGATCCACGTGCGACCTGGAGGACTGGTCAGAACC GTTACTGTGAATGAGTGAAGATCCTG
GAGGACCCTGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTTT
AAAAGACAAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCCA
ATGTACCAGGTGAAC TGACGGAGCTCAGAAGTTTTCTTTACACCAACTGTCAATGCCGGAATTTTGATTCTGT
TTTGTAAGATTTAATAAAAGTCAAAAAACTTGCAAAAAAAAAAAAAA

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FIGURE 5147

MVQKKPAELQGFHRSFKGQNPFEAFSLDQPDHGDSDFGLQCSARPDMPASQPIDIPDAKKRGKKKKRGRATDSF
SGRFEDVYQLQEDVLGEGAHARVQTCINLITSQEYAVKII EKQPGHIRSRVFREVEMLYQCQGHNVLELIEFFE
EEDRFYLVFEKMRGGSILSHIHKRRHFNELEASVVVQDVASALDFLHNKGIAHRDLKPENILCEHPNQVSPVKIC
DFDLGSGIKLNGDCSPISTPELLTPCGSAEYMAPELVEAFSEEASIYDKRCDLWSLGVILYILLSGYPPFVGRCG
SDCGWDRGEACPACQNMLFESI QEGKYEFPDKDWAHISCAAKDLISKLLVRDAKQRLSAAQVLQHPWVQGCAPEN
TLPTPMVLQRWDSHFLLPPHPCRIHVRPGGLVRTVTVNE

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FIGURE 5148A

CCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCCGCCGTGTAAACATCCGAGGTCATTTGTTGCGTTGAATTAT
CTGACCATCCTTTTTTACTGTGACTCTTCCCATTCTCTTTGGCAAGAAGTCCCCTTCTCGCCCCCAAACCAGCAA
GGGACTCCCCCACCCTGGGTCTGTGCCCTGCCCGCGCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCT
GTCCTGACGGTTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTGCGCAAGGTTTTCTCTCCAGAACCCACAGT
GGGCCGCCGCGATGGCCCTCAAGATGGTGAAGGGCAGCATCGACCGCATGTTGACAAGAATCTGCAGGACTTGG
TCCGCGGCATCCGTAACCACAAGGAGGACGAGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGC
TGAAGCAGGACAACATAGCGGTGAAGGCGAACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACA
TCAGCTGGGCCGCTTCAACATCATAGAAGTGATGAGTGCCTCCAAGTTCACCTTCAAGCGAATTGGCTACCTCG
CTGCTTCCCAGAGCTTTCACGAAGGCACCGACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCA
GCCCCAGCCAGTACGACACAGGTGTTGCACTGACGGGTCTGTCTGCTTCGTCACCCAGACCTTGCCAGAGACC
TGGCAAATGACATCATGACACTGATGTACACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCATGTACA
AGGTGTTCTTGAAGTACCCCGAGTCGCTGCGCCCTGCCTTTCCCGGCTGAAGGAGAAGCTGGAGGACCCCGACC
CCGGGGTTCAGTCGGCTGCCGTCAATGTCACTGCGAGCTGGCCAGACGCAACCCTAAGAACTACCTGTCCCTGG
CCCCGCTCTTTTCAAGCTGATGACGTCTCCACCAACAACCTGGGTCTCATCAAGATCATCAAGCTGTTCCGTG
CTCTTACTCCTTTGGAACCGCGCTGGGCAAGAAGCTGATCGAGCCCCCTACCAATCTCATCCACAGCACGTCTG
CCATGTCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCTCCGGCATGCCCAACC
ACAGCGCCAGCATCCAGCTTTGTGTTCAAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAATTGAAGTACC
TGGGGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGC
AGTGCCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGA
ACCTGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGC
TCACCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCAACTTCGAGTGGTACATCAGCATCC
TGGTGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCC
GCGTGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGCTGTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCA
GCACCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGC
AGGAACCAACACCACTTTGGAGGCCATGCTGCGGCCAGAGTACCACGCTGCCAGGCCACATCCAGGCCGTGT
ATGTGCAGAACGTGGTCAAGCTCTACGCCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTC
AGGCCGTACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGTCAGAGCGCAGACCTGGAGGTGCAGGAGCGGG
CGTCTGTCATCTGTCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCA
GCGCTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGG
ACCTGGACGCCCTGGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCCAGGGCCGTCTTCCACG
AGGAGGAGCAGCGCGTCCCAAGCACCGGCCGTGCGAGGCGGACGAGGAGGAGCTGGCTCGGCGCCGAGAGGCC
GGAAGCAGGAGCAGGCCAACAAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACCCC
CGGGCGTGGAGCACATTCCTGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTGAG
ATCAGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGA
AGGAGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCCTGCC
AGCAGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCACGCGACGAGGATGACAAAGACCCCAACG
ACCCCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAACTGCCTATTAGAAACACA
GAAACACCGAGACCTCAAAATCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAAGAAGA
AAGAGAAAAAACACAAAGAGAAAGAGAGACAAAGGAGAAGAAGGAGAAGGAGAAGAAGAATCTCCCAAGC
CTAAGAAGAAGAAACACAGGAAGGAGAAGGAGCGGACCAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAG
GCAGCGAGGAGGACGCGGGGAGCCGCTGCAAGATGGCGCGCCAGAGGAGGAGCTCCCGCTGAGTCCAGCT
ACTCCCTCCTCGCTGAAAATTCCTATGTTAAATGACCTGTGACATCCGGGGCAGTCTGCGAGGAGGACGAGG
TCACTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCAC
TCAATGCCAGGATGGCCCGGCCGAGGGCTCCTCCGTCCACGATGGCGTCCCCGTGCCTTTCCAGCTGCCCCAG
GCGTCTCCAACGAAGCCAGTATGTGTTACCATCCAGAGCATCGTCATGGCGAGAAGCTCAAGGGGACCCTGT
CCTTCATTGCCAAGAATGACGAGGGTGCAGCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCT
ACTTGATCACCCTCCCTGCTACAGTGACGCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAA
TCAAAGTCGATGGCATTCCGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTACCACCATTTTTCCGTTG

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FIGURE 5148B

TGGAGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAA
AGGGTGAGAACTCTGTCTCAGTCGACGGGAAGTGCACTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGA
AGGCGACGCTGGCCAAGTGTTGAGAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGC
AGCCCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTG
TCCGCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCA
TTCTCTTTGGCAAGAAGTCCCCTTCTCGCCCCAAACCAGCAAGGGACTCCCCACCTGGGTCTGTGCCCTGCC
CGCGCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCTGGGCCAGGGCCTGATGGGCACCACGTG
AGGGGCACTTGTTGGACAGGGCGGGGCTGACGTGGCTCCTCTGGGGTCGCTGCTTTTGACCCAAAGGTCCTGA
CGGTTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTTCTCTCCAGAACCCACAGTGGGAAAG
CGGTCTTGCCAGGCGTTGTCCATTGTCAGTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCG
CCAGCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGT
TGAGGCCTCTCTGCCACCCGTCTTCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCC
CTGCTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCTTAGGAAGGCCCAGGCAGGGCCTGG
AAGCAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCT
CACAGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGA
CCCTTCTTCAGAGATAATGACATTTTATCTTCTCCTTTTGATGAAAACGTGCACTTTAGCATGTAATCCATTACA
GAATCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTACATAAGAATTTATTTGCTATCGACATTCC
CGTATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAACAGG

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FIGURE 5149

MALKMVKGSIDRMFDKNLQDLVRGIRNHKEDEAKYISQCIDEIKQELKQDNIAVKANAVCKLTYLQMLGYDISWA
AFNIIIEVMSASKFTFKRIGYLAASQSFHEGTDVIMLTNNQIRKDLSSPSQYDTGVALTGLSCFVTPDLARDLAND
IMTLMSHTKPYIRKKAVLIMYKVLKYPESLRPAFPRLKEKLEDPDPGVQSAAVNVCIELARRNPKNYLSLAPLF
FKLMTSSTNNWVLIKI IKLFGALTPLEPRLGKKLIEPLTNLIHSTSAMSLLYECVNTVIAVLISLSSGMPNHSAS
IQLCVQKLRILIEDSDQNLKYLGLLAMSKILKTHPKSVQSHKDLILQCLDDKDESIRLRALDILLYGMVSKKNLME
IVKKLMTHVDKAEGTTYRDELLTKIIDICSQSNYQYITNFEWYISILVELTRLEGTRHGHLIAAQMLDVAIRVKA
IRKFVVSQMSALLDSAHLLASSTQRNGICEVLYAAAWICGEFSEHLQEPHHTLEAMLRPVTTLPGHIQAVYVQN
VVKLYASILQQKEQAGEAEGAQAVTQLMVDRLPQFVQSADLEVQERASCILQLVKHIQKLQAKDVPVAEEVSALF
AGELNPVAPKAQKKVPVPEGLDLDAWINEPLSDSESEDERPRAVFHEEEQRRPKHRPSEADEEEELARRREARKQE
QANNPFYIKSSSPQKRYQDTPGVEHIPVVQIDLSVPLKVPGLPMSDQYVKLEEERRHRQKLEKDKRRKKRKEKE
KKGKRRHSSLPTESDEDIAPAQQVDIVTEEMPENALPSDEDDKDPNDPYRALDIDLKPLADSEKLP IQKHNTE
TSKSPEKDVPMEKKSKKPKKKEKKHKEKERDKEKKKEKEKKKSPKPKKKKHRKEKEERTKGKKKSKKQPPGSEE
AAGEPVQNGAPEEEQLPPESSYSLAENSYVKMTCDIRGSLQEDSQVTVAIVLENRSSSILKGMELSVLDSLNAR
MARPQGS SVHDGVPVPFQLPPGVSNEAQYVFTIQSIVMAQKLKGTLSFIAKNDEGATHEKLDLFRHFSCSSYLIT
TPCYSDAFAKLLESGDLSMSSIKVDGIRMSFQNLAKICFHHHFSVVERVDSCASMYSRSIQGHVCLLVKKGEN
SVSVDGKCS DSTLLSNLLEEMKATLAKC

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FIGURE 5150A

GCGGCCGTCCTGACTGCTGCGCCATATCCTGCAGCAGGTCTACAACCACTCGGTGACCGACCCCGAGAAGCT
CAACAACACTACGAGCCCTTCTCCCCGAGGTGTACGGGGAGACCTCCTTCGACCTGGTGGCCAGATGATTGATGA
GATCAAGATGACCGACGACGACCTGTTTGTGGACTTGGGGAGCGGTGTGGGCCAGGTGCTGCTCCAGGTTGCTGC
TGCCACCAACTGCAAACATCACTATGGCGTCGAGAAAGCAGACATCCCGCCAAGTATGCGGAGACCATGGACCG
CGAGTTCAGGAAGTGGATGAAATGGTATGGAAAAAGCATGCAGAATACACATTGGAGAGAGGCGATTTCTCTC
AGAAGAGTGGAGGGAGCGAATCGCCAACACGAGTGTATATTTGTGAATAATTTTGCCTTTGGTCCTGAGGTGGA
TCACCAGCTGAAGGAGCGGTTTGCAAACATGAAGGAAGGTGGCAGAATCGTGTCTCGAAACCCCTTTGCACCTCT
GAACTTCAGAATAAACAGTAGAACTTGAGTGACATCGGCACCATCATGCGCGTGGTGGAGCTCTCGCCCTGAA
GGGCTCGGTGTCTGTGGACGGGAAGCCAGTCTCTACTACCTGCACACTATCGACCGCACCATACTTGAAAACTA
TTTTTCTAGTCTGAAAAACCCAAAACCTCAGGGAGGAACAGGAGGCAGCCCGCGCCGCGCCAGCAGCGCGAGAGCAA
GAGCAACGCGGCCACGCCCACTAAGGGCCAGAGGGCAAGGTGGCCGGCCCCGCGGACGCCCCCATGGAATCTGG
TGCTGAGGAAGAGAAGGCGGGAGCAGCCACCGTGAAGAAGCCGTCTCCCTCCAAAGCCCCGAAGAAGAAGCTAAA
CAAGAAGGGGAGGAAGATGGCTGGCCGCAAGCGCGGGCGCCCCAAGAAGATGAACACTGCGAACCCCCGAGCGGAA
GCCCCAAGAAGAACCAACTGCATGGATGCCCTGCACGCTCAGACCGTGTCTCAGACGGCGGCTCTCTACCCCA
GGATGCCTACAGATCCCTTACAGCCGTTCTACCAGCTACCTCCGAGCGTGCAGCGGCACTCCCCCAACCCGCT
GCTGGTGGCGCCACCCCGCCCGCGCTGCAGAAGCTTCTAGAGTCCCTCAAGATCCAGTACCTGCAGTTCCTGGC
ATACACAAAGACCCCCAGTACAAGGCCAGCTGCAGGAGCTGCTGGGCCAGGAGAAGGAGAAGAACGCCAGCT
CCTGGGTGCGGCTCAGCAGCTCCTCAGCCACTGCCAGGCCAGAAAGGAGGAGATCAGGAGGCTGTTTCAGCAAAA
ATTGGATGAGCTGGGTGTGAAGGCGTGACCTACAACGACCTGATTCAAGCGCAGAAGGAGATCTCCGCCCATAA
CCAGCAGCTGCGGGAGCAGTCGGAGCAGCTGGAGCAGGACAACCGCGCGCTCCGCGGCCAGAGCTTGAGCTGCT
CAAGGCTCGCTGCGAGGAGCTGCAGCTGGACTGGGCCACGCTGTGCTGGAGAAGCTGTTGAAGGAGAAGCAGGC
CCTGAAGAGCCAGATCTCGGAGAAGCAGAGGCACTGCCTGGAGCTGCAGATCAGCATTGTGGAGCTAGAGAAGAG
CCAGCGGCAGCAGGAGCTCCTGCAGCTCAAGTCTGTGTGCCGCTGACGACGCCCTGTCCCTGCACCTGCGTGG
GAAGGGCGCCCTGGGCGCGAGCTGGAGCCTGACGCCAGCCGGCTGCACCTGGAGCTGGACTGCACCAAGTTCTC
GCTGCCCTCACTTGAGCAGCATGAGCCCGGAGCTCTCCATGAACGGCCAGGCTGCTGGCTATGAGCTCTGCGGTGT
GCTGAGCCGGCCTTCGTGGAAGCAGAACACGCCCCAGTACCTGGCCTCACCCCTGGACCAGGAGGTGGTGCCCTG
TACCCCTAGCCACGTGGCGCGCGCGCTGGAGAAGCTGTCTGGCCTAGCCGACCCGACTACACTAGGCTGTC
CCCGGCCAAGATTGTGTGAGGCGGCACCTGAGCCAGGACCACACGGTGGCCGGCAGGCGGCTGCCAGTGAGCT
GCATTGAGAGCTGAGCACACCAAGGAGAAGCGCCTTCCCTACCAGAGCCCCAGCGTGCCTGGCAGCATGAAGCT
GAGCCCTCAGGACCCGCGGCCCTGTCCCTGGGGCCTTGACGCTTGCTGGAGAGAAGAGCAGTGAGAAGGGCCT
GAGAGAGCGCGCTACGGCAGCAGCGGGGAGCTCATCACCAGCCTGCCCATCAGCATCCCGCTCAGCACCGTGCA
GCCAACAAGCTCCCGGTGAGCATTCCCTGGCCAGCGTGGTGTGCTGCCAGCGCGCGGAGAGGGCGAGGAGCAC
CCCCAGTCCCGTGCTGCAGCCCCGTGACCCCTCGTCCACACTTGAAAAGCAGATTGGTGCTAATGCCACGGTGC
TGGGAGCAGAAGCCTTGCCCTGGCCCCCGAGGCTTCTCCTACGCTGGCTCGGTGGCCATCAGCGGGGCTTGGC
GGGAGCCCCGGCTCTCTCACACCTGGAGCCGAGCGGCCACCTTGGATGAGTCTCCAGCTCTGGGAGCCTTTT
TGCCACCGTGGGGTCCCGCAGCTCCACGCCACAGACCCCTGCTGCTGGCACAGCCCCGGAACCTCGCTTCTGTC
CTCTCCCGCCACCAGCTCTCCTCCAGTCCCCGGCTTGGTGGGGCCGCCAGGGCCCGTTGCCGAGGCCAGCAA
GGGAGACCTGCCCTCCGATTCCGGCTTCTCAGATCCTGAGAGTGAAGCCAAGAGGAGGATTGTGTTACCATCAC
CACTGGTGCGGGCAGTGCCAAGCAGTCGCCCTCCAGCAAGCAGACCCCTGACCGCCAGCGCCCTGGGGACTG
TGTGCCGAGCCACGGGCAGGACAGTCGCAAGGCGCGGCCGGAAGCAGCAGCATCTGCGGGGACGCCAGCTTGAG
CGCAGGCGTGTCCCCAAGCGCCGAGCCCTGCCGTCCGTGCTGGCTTTTACACAGCCTTCGGGGTCTCCCT
CAACCTCAACTCCATGGTCAAGTAAATCAACAGCCCTGGAGATTACAGCCATCTCGTCCCGGAGACCTCCCT
GAAGAGCTCCCTGTGCCCTACCAGGACCAGACCAGCCCCCGTGTCTCAAGAAGGAGCGGCTCTGAGCCAGAC
CAATGGGGCACACTACTCCCCACTCACCTCAGACGAGGAGCCAGGCTCTGAGGACGAGCCAGCAGTGCTCGAAT
TGAGAGAAAAATTGCAACAATCTCCTTAGAAAGCAAATCTCCCCGAAAACCTTGAAAATGGTGGTGGCTTGGC
GGGAAGGAAGCCCCGCGCCCGCGGCGAGCCAGTCAATAGCAGCAAGTGGAAGTCCACCTTCTCGCCCATCTCCGA
CATCGGCTGGCCAAGTCGGCGGACAGCCGCTGCAGGCCAGCTCCGCCCTCAGCCAGAATCCCTGTTACGTT
CCGGCCCCCGCTGGAGGAGCCCTCTGCCGATGCCAAGCTGGCGCTCACCCAGGAAAGGCTTTCCCGGCTCCCT

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FIGURE 5150B

GTCTGGGGGCTGACGGACTCAGCCCGGGCACCAACCCTGCCAACGGCTGCACCTTCGGCGGGGGCCTGGCCGCGGA
CCTGAGTTTACACAGCTTCAGTGATGGTGCTTCTCTTCCCCACAAGGGCCCCGAGGCGGCCGGCCTGAGCTCCCC
GCTGAGCTTCCCCTCGCAGCGCGGCAAGGAGGGCTCGGACGCCAACCCCTTCTGAGCAAGAGGCAGCTGGACGG
CCTGGCTGGGCTGAAGGGCGAGGGCAGCCGCGGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGGGCCCAC
GGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTGCACCTCAAGAATGGCCACAA
CCTCTTCATCTCTGCGGCGGCCGTGCCCTCCCGGAAGCCTCCTCAGCGGCCCCGGCCTGGCCCCGGCGGCGTCTC
CGCAGGCGGCGCGGCGTCTCCGCCAGACGCACCGGTCTTCTGGGCCCCCTTCCCGCGGGACCGCAGTTTCG
GCTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGTGTTACAGTC
TGTGCCGGCCGCCGAGGCCTGGTGCACGTGTCTCGTCCGCTGCCACCAGACTGACCAACTCGCACGCCATGGGCAG
CTTTTCGGGGTGGCAGGCGGCACAGTTGGAGGTAAGTAGGATTTCTACCTCAACCGCGAGACCTATGCAAGGAC
GGTGTGGACCAACTCGCGCCCGCGGCATGGTGGCCGCGGCTGCCGGGCTCCACCCCTGGACGGCAGAGGCAA
GGACGGACGGGAGCTCCACTGTGAATCGGCGGCACGCGCCGAGGAGGCTGGGACTGGTCCAGTTTGTACTGTCTG
ATAGTTTTAGATAAAGTATTTATCATTTTTTAAAAAGTATAAACAAATTCGACTTATTTTATTCCATCTAAGTGG
TAAAAGGCAACTTATTGAGAAATATAAATATCTATATATGAGAGCTCTATATAAAGACACGTGTCTGCAGGGCGG
GCCCCGACGGATTTCGCCACAGCCTGCCCCGGTGCTATCTCGTCCCCAGGCCCCGCGCTGCCCTCCACCCGCTTG
GTGCTGACTAGACGCTGACAACGCCGAACCCCGTTCTCGGAAACGCCGCCCGGCGCTCCCCGACGCGCTGCT
CCCGTACCAAAGGCAGGCCCGTTCGCCACCACATTCCTCGGAGGCCCTCCCCGCGGCTGAGCCCCCTTCTGAGCGC
CCTGGCGCCTGCCCTGAGCTCTTACCTTTACCCCGGCACTGTGAACCCCAAGACTGTTACCCCTCCGGGGCGTG
GGTTGCGCCCTTGATGTGAAGGGGCTGCGCGGTGACGCAGCTGGCCATGTGCTGCGCGATGGTGTGTGAGGA
CGGCGCGGGCACGTTGAACAAGTGCAATTTACTTTTGTATTTCTCGGCTGTCCATGGCTCGCAGCATGCCCTGCGA
TGCGGGGACGGCCTGTCTGGGTCCCTTGGTGTCTGTACAGGAGAGAGTCACTAATGAGTGGCAGTATTTT
ATAGAGATGTGATGAGAATTTATAAATTTATAGATTTGACAGCTTTTATTTTATGATGGTATAATGCACAGTGA
AGAGGAAAGAAAAGCGAGGGGAAAAAACCTTATTTATTCAAACAGTGCACAAAATGGCCCCAGCGTCAGCCCCGA
CCCTAGACCCCTCAGTTGCAGCTCCCAGCAGCCAGACAGAGCTGCCGGCGCCCCCTGCCCTGCCCCACATCCCTTC
CTGTGAGGGCCACGCTGGCACCCATCCCTTGGAGCCTGTGCTGGTTCTCCAGCTGCTGTGGGTGTGCTGGGGC
CAGGGTGCAGTGTGAAACCTGGCCTCTCTGGCCCTAGGCCCCAGGGTGACGTGCGCCCCCACTCTGCAGCCTT
GGCGGGTGCCTGGGACTGGGTGTGGAAGGAGAGGAGCTGAGGCCGGGGTGTAGCAGGCAGGCAGGGCCACTCCAG
TGCTTCTGGAGCCCTGAGCAGTCAGGGCCTGGGTGTCTGAGCAGTGGTGGCTCTGTGCCCTCCCTGGAGGATGG
GATCTGGGA

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FIGURE 5151

MIDEIKMTDDDLFVDLGSVGQVVLQVAAATNCKHHYGVEKADIPAKYAETMDREFRKWMKWYGKKHAEYTLERG
DFLSEEWREIRIANTSVIFVNNFAFGPEVDHQLKERFANMKEGGRIVSSKPFAPLNFRINSRNLSDIGTIMRVVEL
SPLKGSVSWTGKPVSYLHTIDRTILENYFSSLKNPKLREEQEAAARRRQQRRESKSNAATPTKGPEGKVAGPADAP
MDSGAEEEEKAGAATVKKPSPSKARKKKLNKKGRKMAGRKRGRPKKMNTANPERKPKKNQTALDALHAQTVSQATAA
SSPQDAYRSPHSPFYQLPPSVQRHSPNPLLVAPTTPALQKLLESFKIQYLQFLAYTKTPQYKASLQELLGQKEKEK
NAQLLGAAQQLLSHCQAQKEEIRRLFQQKLDDELGVKALTYNDLIQAQKEISAHNQQLREQSEQLEQDNRALRGQS
LQLLKARCEELQLDWATLSLEKLLKEKQALKSQISEKQRHCLELQISIVELEKSQRQQELLQLKSCVPPDDALS
HLRGKGALGRELEPDASRLHLELDCTKFSPLPHLSSMSPELSMNGQAAGYELCGVLSRPFSSKQNTPOYLASPLDQE
VVPCTPSHVGRPRLEKLSGLAAPDYTRLSPAKIVLRRHLSQDHTVPGRPAASELHSAEHTKENGLPYQSPSVPG
SMKLSPODPRPLSPGALQLAGEKSSEKGLRERAYGSSGELITSLPISIPSTVQPNKLPVSIPLASVVLPSRAER
ARSTPSPVLQPRDPSSTLEKQIGANAHGAGSRSLALAPAGFSYAGSVAISGALAGSPASLTPGAEPATLDESSSS
GSLFATVGSRSSTPQHPLLLAQPRNSLPASPAHQLSSSPRLGGAAQGFLPEASKGDLPSDSGFSDEPESEAKRRIV
FTITTGAGSAKQSPSSKHSPLTASARGDCVPSHGQDSRRRGRRKRASAGTPSLSAGVSPKRRALPSVAGLFTQPS
GSPLNLNSMVSINQPLEITAISSEPETSLKSSPVYQDHDQPPVLKKERPLSQTNGAHYSPLTSDEEPGSEDEPS
SARIERKIATISLESKSPPKTLENGGGLAGRKPPAPAGEPVNSSKWKSTFSPI SDIGLAKSADSPLOASSALSQNS
LFTFRPALEEPSADAKLAAHPRKGFPGSLSGADGLSPGTNPANGCTFGGGLAADLSLHFSFDGASLPHKGPEAAG
LSSPLSFPSQRGKEGSDANPFLSKRQLDGLAGLKGESRGKEAGEGGLPLCGPTDKTPLLSGKAAKARDREVDLK
NGHNLFISAAAVPPGSLLSGPGGLAPAASSAGGAASSAQTHRSFLGPFPPGPFQFALGPMSLQANLGSVAGSSVLQS
LFSSVPAAGLVHVSSAATRLTNSHAMGSFSGVAGGTVGGVFNHAVPSASAHPFGARVGRGAACGSATLGPSPLQ
AAASASASSFQAPASVETRPPPPPPPPPPPLPPPAHLGRSPAGPEVLHAPPPPNAALEPPPTLLASNPEPALLO
LASLPPNQAFPLPPTSAASLPPANASLSIKLTSPLPHKGARPSFTVHHQPLPRLALAAQAAPGIPQASATGPSAVWVS
LGMPPPYAAHLSGVKPR

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FIGURE 5152

GGCACGAGGCTTTCTTTGCCCGCCGTTCCGCCAAACGAAGTCGTGGAGGTGGCGAAACGAGGAGGAGATAACGCGG
CCTTGGGCTCTGGTGTCTCCAGTCTGCTAAAGCCCTAAGGCCATCACCATCGACTTCCAGCATCGCCCCGGGGG
CAAGACCGGGAGCGGGGGCGTGGCCTCCTCCTCCGAGAGCAACCGTGACCGCAGGGAGCGCCTCCGGCAGCTGGC
CCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCACCTGGGCTCCTATGAATGCAAACCTCTG
CCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGGAAGAAGCACCAGACCAACCTGGCCCG
GCGAGCAGCCAAGGAGGCCAAGGAGGCCCTGCCAGCCCGCGCCTGAGAAGGTCAAGGTGGAGGTGAAGAAGTT
TGTGAAGATCGGCCGCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCGGAGATGGGCCAGCAGAGCCTCCTCTT
CCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTACCGCTTCATGTCTGCGTACGAGCAGAGGAT
CGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCCTACGAGACCATTGCCTTCAAGGTGCC
GAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAACCGGGAGACCAAGCAGTTCTTCTCCA
GTTCCACTTTAAGATGGAGAAGCCCCGGCTCCACCCAGCCTCCCTGCTGGCCCCCTGGGGTGAAGCGGCCTCC
ACCCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCTTTGCCACCGCCCCCGCCAGGAGGCCT
GCCTCTGCCACCCATGCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCGGGACCACCCAGCTACCCCCGCCAGC
TCCAGGGGTCCACCCCCCGGCCCCAGTGGTGCATCCCCCTGCATCTGGGGTCCATCCCCAGCTCCTGGCGTCCA
CCCCCAGCTCCTGGCGTCCATCCCCAGCCCTGGGGTCCACCCACCAACCTCTGGGGTCCACCCCCCAGCTCC
TGGAGTCCACCCTCCAGCCCCCGGGGTTACCCACCAGCCCCCGGAGTCCACCCACCAGCCCCCTGGGGTTACCC
ACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGTTCACCCACAGCCCCCGGGGTGCACCCAGCAGCCCC
CGCCGTTACCCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATGCACCCCTCAGGCCCGGGGGTCCACCC
CCAACCTCCCGGGGTCCATCCGTGCGTCTCTGGGGTCCACCCTCAGCCTCCGGGAGTTACCCCTCAAATCCTGG
GGTGCACCCCCCAACTCCCATGCCCCCAATGCTGAGGCCCCCACTTCCCTCCGAAGGCCAGGGAACATACTCC
CCCTCCCCCAACCAACTGAGAAGCTGCTCCCTCCCCCAGCAAGCCAGCGCCAGGTGCTCTTGCCTTTTCCCACT
GAGAGAAGGCTGCTCTTTTGTACTGCCCCCGCTCATTAACAGCCTCCCCCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5153

MDFQHRPGGKTGSGGVASSSESNRDRRERLRQLALETIDINKDPYFMKNHLSYECKLCLTLHNNEGSYLAHTQG
KKHQTNLARRAAKEAKEAPAQPAPEKVKVEVKKFVKIGRPGYKVTQORDSEMGOQSLLFQIDYPEIAEGIMPRHR
FMSAYEQRIEPPDRRWQYLLMAAEPYETIAFKVPSREIDKAEGKFWTHWNRETKQFFLQFHFKMEKPPAPPSLPA
GPPGVKRPPPLMNGLP RPPLPESLPPPPPGGLPLPPMPPTGPAPSGPPGPPQLPPPAPGVHPPAPVVHPPASG
VHPPAPGVHPPAPGVHPPAPGVHPPTSGVHPPAPGVHPPAPGVHPPAPGVHPPAPGVHPPAPGVHPPSAGVHPQ
APGVHPPAAPAVHPQAPGVHPPAPGMHPQAPGVHPQPPGVHPSAPGVHPQPPGVHPSNPGVHPPTMPMPMLRPPLP
SEGPGNIPPPPPTN

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FIGURE 5154

TGCGAACGGCGAGCAGCGGCGGCGGCGGCGGAGAGACGCAGCGGAGGTTTTCTGGTTTCGGACCCCAGCGGCCGG
ATGGTGAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTTAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCCTGATGCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACCTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGCGCTGCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTG
CTTCCACAAGAACC GCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

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FIGURE 5155

ACCATTCTGATGTTGGAGCGGCCTCGGTCCGGTTGACTTTGCGGACATCGAGGGCGGGCTTCGGCTCCGATTTTCGG
GGGCTCCGGCAGCGGGAAGCTGGACCCAGGGCTCATAATGGAGCAGGTGAAAGTGCAGATCGCCGTGGCCAACGC
GCAGGAGCTGCTGCAGAGGATGACGGACAAGTGTTTCCGGAAGTGATAGGGAAACCTGGGGGCTCCCTGGACAA
CTCCGAGCAGAAGTGCATCGCCATGTGCATGGACCGCTACATGGACGCCTGGAACACCGTGTCTCGCGCCTACAA
CTCGCGGCTGCAGCGGGAACGAGCCAACATGTGACCGGCGAGCGCGGGCCACCCACCCCTGTTTCATTTCATAAA
CGTGCTTTGAGAGGCGGGGTCCGCATGTACGTACTGCCTGCCCAGGGGCTTAGGAGGGTGGCACCGGTGCTGGGAC
ACACGGGACTGTGTCTCGCCACCCCCCGCCCTGCCCCCTGCCAGCCAGTGCAGCTTGGATCTCGGGGGTGTGGG
GCCCTGTGCCTTCCTGAAGTGCTGGCAGCCAGTGGCACCTCCTTCAGGCCTTTGGGGTATTCCCCTAGTGTGCC
CAAGTCAGCCTCATATTCTGGGCGGACAGCTTGTCTGGACTTCGGAGTTGGGGGTGGTCAGACACCACAGGAGCT
GTCACCTCCTGCGGATGGGCAAATAAATTGGTGGAGGACGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAA

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FIGURE 5156

MEGGFGSDFGGSGSGKLDPLIMEQVKVQI AVANAQELLQRM TDKCFRKCIGKPGGSLDNSEQKCIAMCMDRYMD
AWNTVSRAYNSRLQ RERANM

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FIGURE 5157

GGCACGAGGCCTCGTGCCGTTTTAATGGATATTTATTTTTTACATTGGTCAGTACACAGGTCAGGAGCTCACGC
CAGGGCCTTGAGGACAGGCTGACCCTCCTCCCCGGGGTGGCGTGGGGCTGGGGCACCTCCGACGGCAGAGCCTC
CTTCAGAAAGTGACGCTCAAGTCTTAAAGACACCAAACTGAGCCATGGGCACGCGCCGTCTCCGGGCCATGGCG
TTCAGTGACAGGGCGGGGGCGGCACCGCTCCCTGTGACTGCATCCCGCTCCCTGGGGACCTGCCTGTGGCAGGA
AGGAATGGGGGGCCCCAGCCCCAGGCCGGAAGGAGCCAGCGGCCGACAAAGCAGAAACACCCGCTGCTCCACGT
AGCCCTGCTCGCTGTCTTGTCTCAGAAGTCCCGTCCCATGTAGATAGAGGGGGGCGCATCTTACCAAAGCA
TTTCTCCTGGAGGCTACGCCGCTGTGCTCCAGTCAGGCGGCTGGTAGGGAGCTTTGCCTGCCCCGGGGATACC
CTCTGCCAGCCGCTGGAAGTGGGAATGCTGGCGACAGACTGTGTCTCTTTCCACCTTCATAGCAGGAATCACC
CGGACCCGACTGGCTGGGCTTCGTGCTAGCGAGGGTTCTGGGGGTGGGTCTTGGTGATCTTGTCTATGGGGAGT
CTGCAGTGGTCTCAGCCACATCCTATGTATTTTGGCTCTGGAGGAGCAAAGCTGTATCCTGGAGTTGGTCTGTGA
TTTGCCGACAGCCTTGACAGGCTGGGCTCAGGGACAAAGTCCCCCCCCAAAACCCGAGGTCTCATGTCCAGACGC
TGCCCAAGTCTGTCTTGAAAACAGCACGCCCCAGGCCACAGAACCCCCACCCTACATTTGCCTTGGGTGGAGC
TGGGGGTGGTCTTAGGACTGCGGGTGCCCTTAGCTGAAGGGGGTGGGGAGAAGCGTGGACTGGGCAGCCTGTGGG
TAATTGGAGGTTTCATTGAGAATTGAGTCTTTGGAAACACTAAGAAAATCAAATTTTTAAAGTTATTTATGGCCT
GGGAAACAATTTGCATTTGTCCCCAAATACGCTTAGCTGTGTGCCGCTTAGAACGATGCGAAACCATCCCTCTGT
GTAAGCCCGTGCCGTGTGACTCGAAGCCTAGCGCCCTCCCTGCGAAGCATCAGACGCCACCCAGCCCTGGGGGGA
GGCCACGCTGTGGACCAACGCGGGTTCTGGGGTGACAGCGCCAGGTTAACGCTGAAGCCTGCCCCGCTGAG
CCCAGGAGCCGGGAGGCCTGCGGGCTGACCCAGAATCCGATCATGCACCTGTCTCATGCCAGCGGCTTTGGCTG
GGGTTGGTCTGAAGCCTGCACGCGGCAGTTCTTTGTAAAGATCTGAGGGACTCCTCAGTCCTGGGGCGTCGCCG
CCTGCAGCCTCTTCCAAGCCCTGCGTCCAGCGAGCGTACAGCACAACTGCAAAAACGGAGCTGGGCTGCAGCT
GGGGCTGGCATGGACTTTCAATTCAGAGATTCGGTTTTTAAGAAGATGCATGCCTAATGTGTTCTTTTTTTTTTC
CAATGATTTGTAATATACATTTTATGACTGGAACTTTTTTGTACAACACTCCAATAAACATTTTGATTTTAAAA
AAAAAAAAAAAAAA

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FIGURE 5158

MAFTAGRGRHRSPVTASRLPGDLPVAGRNGGPQPQAGKEPAADKAETPAAPRSPCSLSLLSEVPVPCR

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FIGURE 5159

CGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCCTT
TTCTGGAAGGATTTTCGCTGCTTCCCGAAGGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTGGGCTCTCT
GGCTCGGATTTTTCGAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAACATGAC
GCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTTT
GGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAGA
CAGCGTGGTCTCTGCTCTTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGCT
CATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTCTGGGCATGCAGCGCCTGGCGCAGCTCCT
GGGAGAGCCGGCCGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACAC
GGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGGT
CCCCACATCTCTCTTCAGGAACGCTGAGGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAAA
AATACAATAAATATTTGAACCCCTCCCCCCCAGCACAAACCCCCCAAAACAACCCAACCCACGAGGACCATCGG
GGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGCCGCCCCAGGGCGGAGAT
CCAGGAGCTGGCGGCCGCCGATCCGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCGAAGCTGA
GGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCAGGAGGGTCCAGACTGTC
CACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGAGA
CTTGGTTGAACTTGGTTGGTCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTGAA
GTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTACTTGCACTTGTATTTCG
AACCCTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTCTACTATGAGGGCCTTGTAATAAATTC
TAAAGCCTC

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FIGURE 5160

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCTCTCCGGGCGCGTCTGTGGGGTCGAGA
CTGCGCGGGCGTTGGGCGTGACGCGGCGCCAGTCGGCGGACGAGGGGCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAAC TGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACCATGGTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCGCAAGGAGAAGCCGTCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTGCGGCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAGTGGTGAGCCTGTTCTGTTGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGGCGGCACCTTCCTCTTCATCACTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCTCTTCCTGGTGCTGGGCTACACCGTCTGGCCGGGATGGTCTTCTCAAGTGGTGAG
CGGCCTCGCCATTGTCCCTGCCGCCGAGCCCCGCCGGGAGCCCCGGGCCGGACACAGGCCGCTCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAATACTTCTTTCTTTAAAGTCTTTACC

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FIGURE 5161

GGGCGTCGCGCCCTGGGGCCGGGGCCGGGGCCGGGCACCGCGGTGCGCAAGCGCAACCGTCGGTGGGTGCGGGATCGG
TCGCCTGAGAGGTATCACCTCTTCTGGGCTCAAGATGGACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTT
CCTGCATGACCAGCTCCGGCACGGGGCCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCT
GGAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCCTCCCTCAGACTCTGCCGGAGATATTTGAAGC
GGCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCGAACCCCGCCTTCCGAGGAGGACTCAGC
AGAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAACCTTTGAAGCTGCCGTGCATTTCTA
CGGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGAGCCTACAGCAAACCTCGG
CAACTACGCAGGCGCGGTGCGAGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAG
GATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGA
CCCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCAGCCCCACGGG
AGGCGTGGGCAGCTTCGACATCGCCGGCCTGCTGAACAACCTGGCTTCATGAGCATGGCTTCGAACCTAATGAA
CAATCCCCAGATTACGAGCTCATGTCCGGCATGATTTGCGGTGGCAACAACCCCTTGGGAACCTCCCGGCACCAG
CCCCTCGCAGAACGACCTGGCCAGCCTCATCCAGGCGGGCCAGCAGTTTGCCAGCAGATGCAGCAGCAGAACCC
AGAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCCAGCGCCAGCAACGACGACCAGCAGGAGTG
ACGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTC
CTCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCTTTTA
TCTCTGCCCTCCTCCACTCCCTTTTGTAACTCCCTTACAGCCCCCAGACCCCTTCTTGAAACGAGAGCCAGCAAG
CTGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTG
GGGTGCTCCCGGGCCGCTCTCAGAGAAGTGCGCAGTTTACGTTTACGCCGTGTGGCGGATCGTGTGGCTTCCAAA
GCCTTTTACAGCCCCCGCCCCCATCCCGTGGTCTGTCTGCAGGAACCTCTCCCGTCTGTGAGAAGCCTCTTTCCG
AGTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGG
GCCATGTGTGTTTGCATGAGGAACTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTACCCCCACGCCTCCGC
GGCTCAGGAGCCGTCTTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGT
TTCCCTCCTCCACCCCTCATTTTCTGGTCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGG
CCGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCGGTTTCTGTCTGTGTCCCATCCTGCTGTCTTCTGTCTT
GGATGTTTCATGGGCCCCGGGGCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCA
GGTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGG
GTTCTGAGGCCTGGGGGTGGCAGACGAGCCACGGCGCCGTGGTCCAGCAGCAGGGTTGTGAGTCGGAGCATC
CTGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGG
GCCGCCGCGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCACCCGGGGTGCAGGGCGTGACGTGT
GGGAATAAATAGGCGTTGTGACCTCTAAAAAAAAAAAAAAAAAAAA

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FIGURE 5162

MDNKKRLAYAI IQFLHDQLRHGGLSSDAQESLEVAIQCLETAFGVTVEDSDLALPQTLPEIFEEAAATGKEMPQDL
RSPARTPPSEEDSAEAERLKTEGNEQMKVENFEAAVHFYGKAIELNPANAVYFCNRAAAYSKLGNYAGAVQDCER
AICIDPAYSKAYGRMGLALSSLNKHVEAVAYYKKALELDPDNETYKSNLKIAELKLREAPSPTGGVGSFDIAGLL
NNPGFMSMASNLMNNPQIQQLMSGMISGGNNPLGTPGTSPSQNDLASLIQAGQQFAQQMQQQNPHELIEQLRSQIR
SRTPSASNDDQQE

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FIGURE 5163

GTGGCGGCGGTTGGGCCGAGGCAGGCGGCCCTCAGTGGCCGAGGTGGCTGGACGCGTAGCAGGTGGAAGGAGGGAG
GGAGCCGCAGGCGCAGACCCACCCGCCATGAAGCCCCCGCAGCCTGTGCAGGAGACATGGCGGACGCAGCATCT
CCGTGCTCTGTGGTAAACGACCTGCGGTGGGACCTGAGTGCCAGCAGATAGAGGAGCGCACCAGGGAGCTCATC
GAGCAGACCAAGCGCGTGTATGACCAGGTTGGCAGCCAGGAGTTTGAGGACGTGTCTACGAGAGCAGCTCAAG
GCGCTGGCCGATGTGGAGGTCACCTACACAGTTCAGAGGAATATCCTTGACTTCCCCCAGCATGTTTCCCCCTCC
AAGGACATCCGGACAGCCAGCACAGAGGCCGACAAGAAGCTCTCTGAGTTGACGTGGAGATGAGCATGAGGGAG
GACGTGTACCAGAGGATCGTGTGGCTCCAGGAGAAAGTTGAGAAGGACTCACTGAGGCCCGAGGCTGCGCGGTAC
CTGGAGCGGCTAATCAAGCTGGGCCGGAGAAATGGGCTTACCTCCCGAGAGAGACTCAGGAAAACATCAAACGC
ATCAAGAAGAAGCTGAGCCTTCTGTGCATCGACTTCAACAAGAACCTGAACGAGGACACGACCTTCTGCCCTTC
ACGCTCCAGGAGCTAGGAGGGCTCCCGAGGACTTTCTGAACTCCCTGGAGAAGATGGAGGACGGCAAGTTGAAG
GTCACCCCTCAAGTACCCCCATTACTTCCCCCTCTGAAGAAATGCCACGTGCCTGAGACCAGGAGGAAAGTGGAG
GAGGCCTTCAACTGCCGCTGCAAGGAGGAGAACTGCGCTATCCTCAAGGAGCTGGTGACGTGCGGGCCAGAAAG
TCCCGCCTGCTGGGGTTCCACACGCACGCCGACTATGTCTGGAGATGAACATGGCCAAGACCAGCCAGACCGTG
GCCACCTTCTAGATGAGCTGGCGCAGAAGCTGAAGCCCCTGGGGGAGCAGGAGCGTGCGGTGATTCTGGAGCTG
AAGCGTGCGGAGTGCGAGCGCCGGGGCCTGCCCTTCGACGGCCGCATCCGTGCCTGGGACATGCGCTACTACATG
AACCAGGTGGAGGAGACGCGCTACTGCGTGGACCAGAACCTGCTCAAGGAGTACTTCCCCGTGCAGGTGGTCACG
CACGGGCTGCTGGGCATCTACCAGGAGCTCCTGGGGCTGGCCTTCCACCACGAGGAGGGCGCCAGTGCCTGGCAT
GAGGACGTGCGGCTCTACACCGCGAGGGACGCGGCCCTCGGGGGAGGTGGTCGGCAAGTTCTACCTGGACCTGTAC
CCGCGGGAAGGAAAGTACGGGCACGCGGCCCTGCTTTGGCCTGCAGCCCCGCTGCCTGCGGCAGGATGGGAGCCGC
CAGATCGCCATCGCGGCCATGGTGGCCAACTTCACCAAGCCACAGCCGACGCGCCCTCGCTGCTGCAGCATGAC
GAGGTGGAGACCTACTTCCATGAGTTTGGCCACGTGATGCACCAGCTCTGCTCCCAGGCGGAGTTGCGCCATGTTT
AGCGGGACCCACGTGGAGCGGGACTTTGTGGAGGCGCCGTGCGCAGATGCTGGAGAAGTGGGTGTGGGAGCAGGAG
CCGCTGCTGCGGATGTGCGGCACTACCGCACAGGCAGCGCCGTGCCCCGGGAGCTCCTGGAGAAGCTCATTGAG
TCCGGGCAGGCCAACACAGGCCTCTTCAACCTGCGCCAGATCGTCCTCGCCAAGGTGGACCAGGCCCTGCACACG
CAGACGGACGCAGACCCCGCCGAGGAGTATGCGCGGCTCTGCCAGGAGATCCTCGGGGTCCCGGCCACGCCAGGA
ACCAACATGCCTGCAACCTTCGGCCATCTGGCAGGTGGCTACGACGCCCAGTACTACGGGTACCTGTGGAGCGAG
GTGTATTCCATGGACATGTTCCACACGCGCTTCAAGCAGGAGGGTGTCTGAAACAGCAAGGTTGGCATGGATTAC
AGAAGCTGCATCCTGAGACCCGGCGGTTCCGAGGATGCCAGCGCCATGCTGAGGCGCTTCTGCGGCCGTGACCCC
AAGCAGGACGCCTTCTCCTGAGCAAGGGGCTGCAGGTGCGGGGCTGCGAGCCGAGCCGAGGTCTGCTGAGGC
CTGGCACTGCGACTGCCAGTCTGGCCTGCGCTCCCGCCGCCCTGGTGCCTTAGCCCCGGCACAGGATGGGGCA
GGCTCTGGCACAGTGCCCTGGGACTGGCAGGGTGGCTGAGCGGCTGTCTTGCTCTTGTGATTGTCTGTCCCCACC
CGTCTGTTGGCCACCCGGCTAGAGACGGCGTCTCAAGGCATCTGGAGGGCTTTCTGTTGGCTGCCAGGGCCTGGTC
TTTGTGCACTAACACGTCTCCTCTCTGGGAAACGTCCCTTGTCAGGAGACGGCTCTTCTTTGAAATGAGGTCA
TAAAAGGAAAC

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FIGURE 5164

MKPPAACAGDMADAASPCSVVNDLRWDLSAQQIEERTRELIEQTKRVYDQVGTQEFEDVSYESTLKALADVEVTY
TVQRNILDFFPQHVSFSDIRTASTEADKKLSEFDVEMSMREDVYQRIVWLQEKVQKDSL RPEAARYLERLIKLR
RNLGLHPRETQENIKRIKKKLSLLCIDFNKNLNEDTTFLPFTLQELGGLPEDFLNSLEKMEDGKLKVTLKYPHYF
PLLKKCHVPETRRKVEEAFNCRCKEENCAILKELVTLRAQKSRLLGFTHADYVLEMNMAKTSQTVATFLDELAQ
KLKPLGEQERAVILELKRAECERRGLPFDGRIRAWDMRYMNVQVEETRYCVDQNLKEYFPVQVVTGLLGIYQE
LLGLAFHHEEGASAWHEDVRLYTARDAASGEVVGKFYLDLYPREGKYGHAACFGLQPGCLRQDGSRQIAIAAMVA
NFTKPTADAPSLQHDEVETYFHEFGHVMHQLCSQAEFAMFSGTHVERDFVEAPSQMLENVVWEQEPLLRMSRHY
RTGSAPPRELLEKLIERSQANTGLFNLRQIVLAKVDQALHTQTDADPAEEYARLCQEILGVPATPGTNMPATFGH
LAGGYDAQYYGYLWSEVYSMDMFHTRFKQEGVLNSKVGMDYRSCILRPGGSEDASAMLRRLGRDPKQDAFLLSK
GLQVGGCEPEPQVC

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FIGURE 5165

CTGGGGGGCTTTTCGGATCGGCAGGATGTACCCCCAGGGAAGGCACCCGACCCCGCTCCAGTCCGGCCAGCCCTT
CAAGTTCTCGATCTTGGAGATCTGCGACCGCATCAAAGAAGAATTCCAGTTTCTTCAGGCTCAATACCACAGCCT
CAAGCTAGAATGTGAGAAGCTGGCCAGCGAGAAGACGGAAATGCAGCGACATTATGTCATGTATTATGAGATGTC
GTACGGGCTCAACATTGAAATGCATAAGCAGGCGGAGATTGTGAAGCGTCTGAGCGGTATCTGCGCTCAGATTAT
CCCCCTTCCTGACCCAGGAGCATCAGCAGCAGGTGCTCCAGGCCGTAGAACGCGCCAAGCAGGTCACCGTGGGGGA
GCTGAACAGCCTCATCGGGCAGCAGCTCCAGCCGCTGTCCCACCACGCACCCCTGTGCCCTCACCCCCCGCCC
AGCCGGGCTGGTGGGCGGCAGTGCTACGGGGCTGCTTGCTCTGTCTGGAGCCCTGGTGCCAGGCTCAGCTGGC
GGCGGCTGTCAAGGAGGACCGTGCGGGCGTGGAGGCCGAGGGGTCCAGAGTGGAGAGAGCCCCGAGCAGGAGTGC
ATCTCCCTCGCCCCCTGAGAGTCTCGTGGAGGAGGAGCGACCGAGTGGCCCTGGTGGTGGCGGGAAGCAGAGAGC
AGATGAGAAGGAGCCATCAGGACCTTATGAAAGCGACGAAGACAAGAGTGATTACAATCTGGTGGTGGACGAGGA
CCAACCCTCAGAGCCCCCAGCCCGGCTACCACCCCTGCGGAAAGGTACCCATCTGCATTCTGCCGTCGCGGA
CCTGGTGGACAGTCCAGCCTCCTTGGCCTCTAGCCTTGGCTCACCCTGCCTAGAGCCAAGGAGCTCATCTGAA
TGACCTTCCCGCCAGCACTCCTGCCTCCAAATCCTGTGACTCCTCCCGCCCCAGGACGCTTCCACCCCCGGCC
CAGCTCGGCCAGTCACTCTGCCAGCTTGCTGCCAAGCCAGCACCTTCCACGACAGCGTCGCCCTGAGGAGCCC
CCTGACTCTGTCCAGTCCCTTACCACGTCCTTACGCTGGGCTCCCACAGCACTCTCAACGAGACCTCTCCGT
GCCCAGCTCCTACGTCAGCCTCCACCTGTCCCCCAGGTACAGAGCTCTGTGGTGTACGGACGCTCCCCCGTGAT
GGCATTGAGTCTCATCCCCATCTCCGAGGGTCATCCGTCTCTTCCCTCCCTACCCAGCATCCCTGGGGGAAAGCC
GGCCTACTCCTTCCACGTGTCTGCGGACGGGCAGATGCAGCCGGTTCCCTTCCCTCGGATGCACTGGTAGGCGC
GGGCATCCCGCGGCACGCCCGGCAGCTGCACACGCTGGCCCATGGCGAGGTGGTCTGCGCGGTACCATCAGCGG
CTCCACACAGCATGTGTACACGGGCGGCAAGGGCTGTGTGAAGGTGTGGGACGTGGGCCAGCCTGGGGCCAAGAC
GCCCCTGGCCAGCTCGACTGCCTGAACCGAGACAACCTACATTCTGCAAGTTGCTGCCGGATGGCCGGAG
TCTGATCGTGGGCGGTGAGGCCAGCACCTTGTCCATTGGGACCTGGCGGCGCCACCCCCGTATCAAGGCCGA
GCTGACTTCTCAGCCCCAGCCTGCTACGCCCTGGCCGTCAGCCCCGACGCCAAGGTTTGTCTCTCTGCTGCAG
CGATGGCAACATTGTGGTCTGGGACCTGCAGAATCAGACTATGGTCAGGCAGTTCCAGGGCCACACGGACGGCGC
CAGCTGCATTGATAATTTCCGATTACGGCACTCGGCTCTGGACAGGGGGCCTGGACAACACGGTGCGCTGCTGGGA
CCTGCGGAGGGCCGCCAGCTGCAGCAGCATGACTTCAGCTCCAGATTTTCTCCCTGGGCCACTGCCCTAACCA
GGACTGGCTGGCGGTGGAATGGAGAGTAGCAACGTGGAGATCCTGCAGTCCGCAAGCCGGAGAAATACCAGCT
GCACCTCCACGAGAGCTGCGTGCTGTCCCTGAAGTTTGCTCCTGCGGACGGTGGTTTGTGAGCACCGGGAAGGA
CAACCTGCTCAACGCCTGGAGGACGCCGTACGGGGCCAGCATTTTCCAGTCCAAGGAGTCGTCTCAGTCCTGAG
TTGTGACATCTCCAGAAATAACAAATACATCGTGACAGGCTCGGGGACAAGAAGGCCACCGTGTATGAGGTGGT
CTACTGAGACATGACCCCC

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FIGURE 5166

GCCGCACTGAGCCACAGCCCCGGGGGCCGCTCCCGGGGCCCCCTTGAGGCACTGAGGCACCGAGACTGGTTCTCC
CCGAGAGACTCGGAAGGTGGGGAACGAGGGGACTGTGTTTGGGGAGGTGGCTTTTTTCGTCTGCTGTTGACTGAAC
ACTACAGCGCCCTGTGGTTCCGGGCTTCGCACAGCTGTCCCAGGGATCGATCGCCTGTGCTGCCTTCGCCCCGCG
CCACACCGGGACCCTGCACGGCTGCTTCTGGCCTCGACAGATGACAAAAGAAACAGCCCCAAAATACGACCACTC
CAACCAGCAGTTCCCGCCTGCCTGCCCGCCACTGTCAGGCCTGCCCTGGCCTCCTCGTCCGCAGGGCTGTCTGCT
GGCTTCTGGGGGCAGAAAGAGCGGGGAGCCCCGTGGAAGGGTCAGGGGAGACCAGGTCAGGGCAGCTACATTTCTG
GTGATCAGCCCCATGGGGAGACGGGGCTGGCGGGATACCCCCCCCCCGGCTTCCCCACACCACTTCTGTCTCACC
CGGAAGCGTCCTTTTTTTGTGCCAGGTGTCTACCTAAGAGGGTTGGTGCCAGAAGCCCCCATGGCGAGTGCTGG
GGCCCGCGGTGCCCTGGGGGAGCAGATGGGGCCACCCCTGGCAGGGCCGCTACAACCTTTTCAGCAGCGGAGC
CCTCTGGGGGGCCTGTGCTTGTGGCATCTCTGAGGGCCCTAGATTGCACAAGGTGACCTGGCCGTGGCCTGAGGGT
GGAGTCGCCCAGCACGCAGGCCGGGGCGCTGCGGGGCTAAGTATTAGGCCTTCCCAGGGAGGGGGCGTGCCAAGC
ATCCAGAGCCGGGCTGGGACCGCCAAAACGTCGTGGCCTGGATCCTCTGGGTCTGAGTGCCTGATCCCCTGCCC
CCCAAAAAAGCAGAGGTAGGTGTTGCAGGCCCAGGGCAGGGGTGCCTGCCCCAGGAGAGTCCCAGGCAGTGTTTC
TCGTGCCAGTGGCACCCAGGGGCAAGGACAGCCAACCCCCACCCCTTGCCACGTGTGGGGCCACGTGGGCATGTGG
GGTGTGTGTTTTTACCTTGGTGAATCTCACCTGCCAACGATTTCTCGTGAGTGCCAATGTCCCCAGTGGTGGCA
GCAGATCCTGTGGCCGGCCTGGCGGACGGGACCCAGTGATACCTTGTATATTACACAGTCCTGATTTTCAGACAATT
TCAACCTTAATCTATTTAAAAAAGAATATTCTATACAAGCTGTTTTTAAGCCTTTTACCATTGAAATGCATGTG
TTGTGCGCTTGGGGATGGGAGGAGGGGCTGAGGAGCGGCTCAGTGTACCTCCCACAGCCACCGGCCCTGACCC
TTAATCCAGACACCGATGGAAGTCGACTTTTCATATCTTTCTCCTGAAATGAACTCTGTTTTAAATTGGAATAAA
TTTTGTTCCCT

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FIGURE 5167

MDRLCCLRPPPHRDPARLLLLASTDDKRNSPKIRPLQPAVPACLPATVRPALASSSAGLSAGFWGQKSGEPRGRVR
GDQVRAATFLVISPMGRRGWRDTPPPASPHHFCLTRKRPFFVPGVYLRGLVPEAPHGECWGPVPWGSRWGHPWQ
GRYNLFQQRSPLGGLCLWHL

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FIGURE 5168

GGCCGCCCCGGCGCCCCCAGCAGCCCGAGCCGGGGCGCACAGCCGGGGCGCAGCCCGCGCCCCCGCCGCGATTGA
CATGATGTTTTCCACAAAGCAGGCATTTCGGGCTCCTCGCACCTACCCAGCAACTCAAATTCACCACCTCGGACTC
CTGCGACCGCATCAAAGACGAATTTTCAGCTACTGCAAGCTCAGTACCACAGCCTCAAGCTCGAATGTGACAAGTT
GGCCAGTGAGAAGTCAGAGATGCAGCGTCACTATGTGATGTACTACGAGATGTCCTACGGCTTGAACATCGAGAT
GCACAAACAGGCTGAGATCGTCAAAAGGCTGAACGGGATTTGTGCCCAGGTCCTGCCCTACCTCTCCCAAGAGCA
CCAGCAGCAGGTCCTTGGGAGCCATTGAGAGGGCCAAGCAGGTCACCGCTCCCGAGCTGAACTCTATCATCCGACA
GCAGCTCCAAGCCCACCAGCTGTCCAGCTGCAGGCCCTGGCCCTGCCCTTGACCCCACTACCCGTGGGGCTGCA
GCCGCCCTTCGCTGCCGGCGGTTCAGCGCAGGCACCGGCCTCCTCTCGCTGTCCGCGCTGGGTTCACAGGCCACCT
CTCCAAGGAAGACAAGAACGGGCACGATGGTGACACCCACCAGGAGGATGATGGCGAGAAGTCGGATTAGCAGGG
GGCCGGGACAGGGAGGTTGGGAGGGGGGACAGAGGGGAGACAGAGGCACGGAGAGAAAGGAATGTTTAGCACAAG
ACACAGCGGAGCTCGGGATTGGCTAAACTCCCATAGTATTTATGGTGGCCGCCGGCGGGGGCCCCAGCCAGCTT
GCAGGCCACCTCTAGCTTTCTTCTTACCCCATTCCTCGGCTTCCCTCCTCCTCCCTGCAGCCTGGTTAGGTGGAT
ACCTGCCCTGACATGTGAGGCAAGCTAAGGCCTGGAGGGTCAGATGGGAGACCAGGTCCCAAGGGAGCAAGACCT
CGCGAAGCGCAGCAGCCCCGGCCCTTCCCCCGTTTGAACATGTGTAACCGACAGTCTGCCTGGGCCACAGCCCT
CTCACCCCTGGTACTGCATGCACGCAATGCTAGCTGCCCTTTCCCGTCTTGGGCACCCCGAGTCTCCCCGACCC
CGGGTCCCAGGTATGCTCCACCTCCACCTGCCCCACTCACCACCTCTGCTAGTTCCAGACACCTCCACGCCAC
CTGGTCTCTCCCATCGCCACAAAAGGGGGGGCAGAGGGACGAGCTTAGCTGAGCTGGGAGGAGCAGGGTGAG
GGTGGGCGACCCAGGATTCCCCCTCCCCTCCCCAAATAAAGATGAGGGTACT

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FIGURE 5169

ATGGACCAGGACTATGAGCGGCGCCTGCTTCGCCAGATCGTCATCCAGAATGAGAACACGATGCCACGCGTCACA
GAGATGCGGCGGACCCTGACGCCTGCCAGCTCCCCAGTGTCTCGCCCAGCAAGCACGGAGACCGCTTCATCCCC
TCCAGAGCCGGAGCCAACTGGAGCGTGAACCTCCACAGGATTAACGAGAATGAGAAGTCTCCAGTCAGAACCGG
AAAGCCAAGGACGCCACCTCAGACAACGGCAAAGACGGCCTGGCCTACTCTGCCCTGCTCAAGAATGAGCTGCTG
GGTGCCGGCATCGAGAAGGTGCAGGACCCGCAGACTGAGGACCGCAGGCTGCAGCCCTCCACGCTGAGAAGAAG
GGTCTGTTACGTATTCCCTTAGCACCAAGCGCTCCAGCCCCGATGACGGCAACGATGTGTCTCCCTACTCCCTG
TCTCCCGTCAGCAACAAGAGCCAGAAGCTGCTCCGGTCCCCCGGAAACCCACCCGCAAGATCTCCAAGATCCCC
TTCAAGGTGCTGGACGCGCCCGAGCTGCAGGACGACTTCTACCTCAATCTGGTGGACTGGTCGTCCCTCAATGTG
CTCAGCGTGGGGCTAGGCACCTGCGTGTACCTGTGGAGTGCCTGTACCAGCCAGGTGACGCGGCTCTGTGACCTC
TCAGTGGAAGGGGACTCAGTGACCTCCGTGGGCTGGTCTGAGCGGGGGAACCTGGTGGCGGTGGGCACACACAAG
GGCTTCGTGCAGATCTGGGACGCAGCCGCAGGGAAGAAGCTGTCCATGTTGGAGGGCCACACGGCACGCGTCGGG
GCGCTGGCCTGGAATGCTGAGCAGCTGTCGTCCGGGAGCCGCGACCGCATGATCCTGCAGAGGGACATCCGCACC
CCGCCACTGCAGTCGGAGCGGCGGCTGCAGGGCCACCGGCAGGAGGTGTGCGGGCTCAAGTGGTCCACAGACCAC
CATCTCCTCGCCTCGGGGGGCAACGACAACAAGCTGCTGGTCTGGAATCACTCGAGCCTGAGCCCCGTGCAGCAG
TACACGGAGCACCTGGCGGCCGTGAAGGCAATCGCCTGGTCCCCACATCAGCACGGGCTGCTGGCCTCGGGGGGC
GGCACAGCTGACCGCTGTATCCGCTTCTGGAACACGCTGACAGGACAACCACTGCAGTGTATCGACACGGGCTCC
CAAGTGTGCAATCTGGCCTGGTCCAAGCACGCCAACGAGCTGGTGAACGACGACGGTTACTCACAGAACCAGATC
CTTGCTGGAAGTACCCCTCCCTGACCCAGGTGGCCAAGCTGACCGGGCACTCCTACCGCGTGCTGTACCTGGCA
ATGTCCCCTGATGGGGAGGCCATCGTCACTGGTGTGGAGACGAGACCTGAGGTTCTGGAACGTCTTTAGCAA
ACCCGTTGACAAAGGTAAAGTGGGAGTCTGTGTCTGTGCTCAACCTCTTACCAGGATCCGGTAA

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FIGURE 5170

MDQDYERRLLRQIVIQNENTMPRVTEMRRILTPASSPVSSPSKHGDRFIPSRAGANWSVNFHRINENEKSPSQNR
KAKDATSDNGKDGLAYSALLKNELLGAGIEKVQDPQTEDRRLOPSTPEKKGLFTYSLSTKRSSPDDGNDVSPYSL
SPVSNKSQKLLRSPRKPTRKISKIPFKVLDAPELQDDFYLNLDWSSLNVL SVGLGTCVYLWSACTSQVTRLCDL
SVEGDSVTSVGWSE RGNLVAVGTHKGFVQIWDAAAGKKLSMLEGHTARV GALAWNAEQLSSGSRDRMILQDIRT
PPLQSERRLQGHRQEVCGLKWSTDHLLASGGNDNKLLVWNHSSLSPVQQYTEHLAAVKAIAWS PHQHGLLASGG
GTADRCIRFWNTLTGQPLQCIDTGSQVCNLAWSKHANELVSTHGYSQNQILVWKYPSLTQVAKLTGHSYRVLYLA
MSPDGEAIVTGAGDETLRFWNVFSKTRSTKVKWESVSVLNLFTIR

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FIGURE 5171

TTTCCCGAGATCACCAAGATGCTGGGCGCCGAGTGGAGCAAGCTGCAGCCAACGGAAAAGCAGCGGTACCTGGAT
GAGGCCGAGAGAGAGAAGCAGCAGTACATGAAGGAGCTGCGGGCGTACCAGCAGTCTGAAGCCTATAAGATGTGC
ACGGAGAAGATCCAGGAGAAGAAGATCAAGAAAGAAGACTCGAGCTCTGGGCTCATGAACACTCTCCTGAATGGA
CACAAGGGTGGGGACTGCGATGGCTTCTCCACCTTCGATGTTCCCATCTTCACTGAAGAGTTCTTGGAACAAAAC
AAAGCGCGTGAGGCGGAGCTTCGGCGCTTGCAGGAAGATGAATGTGGCCTTCGAGGAGCAGAACGCGGTACTGCAG
AGGCAAAACGCAGAGCATGAGCAGCGCGCGAGCGTCTGGAGCAGGAGCTGGCGCTGGAGGAGCGGAGGACGCT
GGCGCTGCAGCAGCAGCTCCAGGCCGTGCGCCAGGCGCTCACCGCCAGCTTCGCCTCACTGCCGGTGCCGGGCAC
GGGCGAAACGCCCACGCTGGGCACTCTGGACTTCTACATGGCCCGGCTTCACGGAGCCATCGAGCGCGACCCCGC
CCAGCACGAGAAGCTCATCGTCCGCATCAAGGAAATCCTGGCCCAGGTCGCCAGCGAGCACCTGTGAGGAGTGGG
CGGGCCACGATGCAGAGGAGAAGCTGTGGGCGCGGCCCTGCCACACCCACCCCGTGACGAGAGGCTGGGGGT
CCACCCTTTGGGGCCTGGTCCCATCCTGCACCTTTGGGGGCTCCAGCCCCCTAAAAATTAAATTTCTGCAGCATC
CCTTTAGCTTTCAATCTCCCCAGCCCCCTGAACCCGAAAAAGCACTCGCTGCGCGATACACCCAGAAGAACCTC
ACAGCCGAGGGTGCCCCCTCCTCGGAGGACAGCCACGCGCTACACTGGCTCTCCGGGCCACCCACAGGACACAGGG
CAGACGAAACCCACCCACAGCACACGGCAGGACCCCAAAATTACTACTACGGGGGGCTGTGCCATAGGCCACA
CAGGAAGCTGCCTTGTGGGGACTTACCTGGGGTGTCCCCCGCATGCCTGTACCCAGATGGGTGGGGGCCGGCTT
TGCCCATCCTGCTCTCCTCCAGCCGAGGGACCTGGTGGGGGTGGCTCCTTCTCACTGCTGGATCCGGACTTTTT
AAATAAAAACAAGTAAATTTGTGTTTTAAA

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FIGURE 5172

MLGAEWSKLQPTKQRYLDEAEREKQQYMKELRAYQQSEAYKMCTEKIQEKKIKKEDSSSGLMNTLLNGHKGGDC
DGFSTFDVPIFTEEFLDQNKAREAELRRLRKMNVAFEEQNAVLRQNAEHEQRARASGAGAGAGGAEDAGAAAAA
PGRAPGAHRQLRLTAGAGHGRNAHAGHSGLLHGPAASRSHRARPRPAREAHRPHQGNP GPGRQRAPVRS GRAHDAE
EKLWARPCHTPPRGREAGPPFGAWSH PAPLGAPAPLKLNFCSIPLAFNLPSPLNPEKALAARYTQKNLTAEGAP
PRRTATRYTGSPGHPQDTGQTKPTPSTRQDPPNYSLRGAVP

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FIGURE 5173

GCGCCAGGCCCGCTGGGGCAGGTGTCCCGTGGAATCGACGGAGGGGCTGCCGTGGGCGGCCGTGACAGTCACAG
AGAGGGGAAGAGAAAACAGGGACGGTGACACACACAGAGAGAAGGAAGAGCAGACAGAGGCACAGCAGGAGACCC
CCCCAAGCCCGAGGAGGACAGCCTGGGGATGCAGAGCACATGCCGGCCCCAGTGGAGGGAACCGATTTCGCCGA
GCCGGGAGGCAAGCCTGGGGCTCCCCTGCCCTGTCCCTGCCGGTAGCCCCCCCAGCCGTCTCCCCACCATCTGTC
CCGCTGCCGTCCCACCAGGTGGGAGCCATGTTCTGAGCCCCGGGCGAGGGGCGGGCAACCGAGGGTGGGGGTCTG
GGGCCGGGCGAGGAGGCCCCCAAGAAGAAGCACCGGAGGAACCGCACCACTTCACCACCTACCAGCTGCACCAG
CTGGAGCGGGCGTTCGAGGCCTCTCACTACCCGGATGTGTACAGCCGTGAGGAGCTGGCAGCCAAGGTGCACCTA
CCTGAGGTGCGCGTGACAGGTGTGGTTCCAGAACCGCCGGGCCAAGTGCGCGCCGCCAGGAGCGGCTGGAGTCAGGC
TCGGGTGCCGTGGCAGCTCCGAGACTCCCCGAGGCCCCAGCGCTGCCGTTCGCCCGCCCCCGGCCATGTCGCTG
CCCCTGGAGCCCTGGTTGGGCCCGGACCGCCGGCCGTGCCAGGCCTCCCCCGCTCCTGGGCCCGGGCCCGGGG
CTGCAAGCGTCCCTCGGGCCTCATGCCTTTGCTCCACCTTCGCAGATGGCTTCGCCCTGGAGGAGGCGTCCCTG
CGGCTGTGGCCAAGGAACATGCACAGGCTCTGGACAGGGCCTGGCCGCCAGCCTGAGCCTGCCGCCCTCCCGGG
CCCCCTCCTCGGCCCAACCGAGAACCGGGGACGTGCCCTGGTGACAGCCACCACGCCTTGGCCTAGGCCGAGGT
CATGGAGCAACCGTGGTCAGGCCAGGCCACCACCACTGGGGAGCGGGACCAGAGAGACAGGCTGTGGGTTCCT
GCCCCATCCCGTCTCCACCCCATCGCCACCCGTCTGTGTCAGCGGACTGGCCCCCAGTGTGAGGCAGGAGG
TGACCAAGTATTCTCAGGCCAGGTGCGGGGACCTCCTCCCTCCTGGGGCCTCAGTCTCCTGTCTGTAAATTGG
GCGTGGGGGCTCCGAGGTTCGAGGGCTGCGAGGCTGTGGGTGGCGGGACCGCTGACTCTGTAAGATGAGTGTA
ATCTCTCTGCTTCTCCTAATCCCCATCAGCAGAGCTGCCCACTCTCCAGGCTCCAGTCCCCTGGAAATAACAAA
TAGCAGCAGCTCCCGCGAGCCTGGTCTCCTCTCACCCTGTGCTCGCCATGTGAGCACTCCCCTCTCCGTTGTGCC
CTGGACCTCGGGCACAGCTGTGAGCCATTCTATAGAGAGGGAAACCGGGGCTTAGGCAGGAAGCCAGGTCCCCA
AAGTCGCACGCCAGGAGTGATGGAGCTGCCTTTCAGACCCATCACCAGTCTACCGTCCGGGGCACAGCGACA
GGTTCGGAGAGAGGGTGGGTCCCGGGCCAGGTGCTGGTGGGCCTCCAGGTGGAGGCGGGCTGATGCTGGGTGTG
TCGTATCGTCAGACCGTTCCTCACGTCCCCACAGACCCAGGCCCTGTGCATGTCCCAGTGGAGGCATGGCCA
GCATCTGCTCTGTCCAACCCAGTCGCATCGCCCAAGAGCTCTGAGCAAGGAGGCTGTGCGGGGGCCGAGAACCGG
CTGGGACTGGCAAGCACGGCTGGCCAGTGCAGCAGGAGGGGGCCCTGAGGCATGGGATGGGACAGTCTGGGCCA
GCGCCACCTCCCGGGACAGAAGTGCGGGCACCAGGGCAGGAGCTGCAGTAGCTACECTCCCCGTCTCCAGCCTGGG
CTCCCCAGATCACTCCCAGATCACCAGGTCACCCCATCTCTAGGCGGCACCTCACACACCAGTCTGTGGTCCAA
CGCCCCGCCATCACCCAATGTCAACGCACACCAGGCAGTGGGGACACGGCAGTAAGCACAAAGAAAGATTTTTTT
TTTTTAAAGCTAAACCAGGCCAGGTGCGGTGGCTCATGCCTGTAATCCAGTGCTTTGGGAGGCTGAGGTGGGAG
GATTGCTTGAGACCAGCCTGGGTGACACAGCAAGACCCCATCTCCACAAACGTTTTTAAATGTGCCGGGTGTAC
TGGTGACACCTGTATCCAGCTACCCAAGAAGCTGAGGCAAGAGGATCACTTGAGCCCAGAAGGTGAGGCTG
CAGGGAGCTGTGATCACACTGCTGCACTCCAGCCTGTGCAACAGAGCCAGACCCTGACTCAATACAAATAAAAC
CAAATCTAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5174

MFLSPGEGPATEGGGLGPGEAPKKKKHRRNRRTTFTTYQLHQLERAFEASHYPDVYSREELAAKVHLPEVRVQVWF
QNRRAKWRRQERLESGSGAVAAPRLPEAPALPFARPPAMSLPLEPWLGPGPPAVPGLPRLLGPGPGLQASFGPHA
FAPTFADGFALEEASLRLLAKEHAQALDRAWPPA

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FIGURE 5175

GGCCGGCGGGCGGGCGGGCGGGCGGGAGGAGACCGCAGTGC GGCCGGCGCTAGGACCCGCGGGGGCCTCCCAGGCC
GCGGCGCCTCCCGCTTTCCCCACTCCCCGACCCTTCTTCGCCCCCAAATGAGGAAACGGAGCAACTCGCTCCA
AGTTGTGCAGCCGGGACCGCCTCGGGGTGTGCAGCCGGCTCGCGGAGGCCCTCCTGGGGGCGGGCGCGGGGCGCG
GCTCGGGGGCGCCCCCTGAGCAGAAAACAGGAAGAACCAGGCTCGGTCCAGTGGCAGCCAGCTCCCTACCTCCTG
TGCCAGCCGACTGGCCTGTGGCAGGCCATTCCAGCGTCCCCGACTGTGACCACTTGCTCAGTGTGCCTCTCACC
TGCCTCAGTTTCCCTCTGGGGGCGATGGCGGGGCGAGGCTCTCTGGTTTCTGGCGGGCATTTCACGGCTGTGAT
TCTGCTGAGGAACTTCCCCGGGTGAGCCCCGCTTCTCCGAGCCTGGCAGCCCCCTCCCGTCTCAGCCAGGATG
CCAACGAGGCGCTGGGCCCCGGGCACCCAGTGTATCACCAAATGCGAGCACACCCGCCCCAAGCCAGGGGAGCTG
GCCTTCCGCAAGGGCGACGTGGTCACCATCCTGGAGGCCTGCGAGAACAAGAGCTGGTACCGCGTCAAGCACCAC
ACCACTGGACAGGAGGGGCTGCTGGCAGCTGGGGCGCTGCGGGAGCGGGAGGCCCTCTCCGAGACCCCCAAGCTC
AGCCTCATGCCGTGGTTCCACGGGAAGATCTCGGGCCAGGAGGCTGTCCAGCAGCTGCAGCCTCCCGAGGATGGG
CTGTTCCCTGGTGCGGGAGTCCGCGCGCCACCCCGGCGACTACGTCTGTGCGTGAGCTTTGGCCGCGACGTCATC
CACTACCGCGTGTGTCACCGCGACGGCCACCTCACAATCGATGAGGCCGTGTTCTTCTGCAACCTCATGGACATG
GTGGAGCATTACAGCAAGGACAAGGGCGCTATCTGCACCAAGCTGGTGAGACCAAGCGGAAACACGGGACCAAG
TCGGCCGAGGAGGAGCTGGCCAGGGCGGGCTGGTTACTGAACCTGCAGCATTTGACATTGGGAGCACAGATCGGA
GAGGGAGAGTTTGGAGCTGTCTGTCAGGGTGAGTACCTGGGGCAAAGGTGGCCGTGAAGAATATCAAGTGTGAT
GTGACAGCCCAGGCCCTTCTGGACGAGACGGCCGTCATGACGAAGATGCAACACGAGAACCTGGTGCCTCTCCTG
GGCGTGATCCTGCACCAGGGGCTGTACATTGTCTATGGAGCAGTGAGCAAGGGCAACCTGGTGAACCTTTCTGCGG
ACCCGGGGTTCGAGCCCTCGTGAACACCGCTCAGCTCCTGCAGTTTTCTCTGCACGTGGCCGAGGGCATGGAGTAC
CTGGAGAGCAAGAAGCTTGTGCACCGCGACCTGGCCGCCCGCAACATCCTGGTCTCAGAGGACCTGGTGGCCAAG
GTCAGCGACTTTGGCCTGGCCAAAGCCGAGCGGAAGGGGCTAGACTCAAGCCGGCTGCCCGTCAAGTGGACGGCG
CCCGAGGCTCTCAAACACGGGAAGTTACCAGCAAGTCGGATGTCTGGAGTTTTGGGGTGCTGCTCTGGGAGGTC
TTCTCATATGGACGGGCTCCGTACCCTAAAATGTCACTGAAAGAGGTGTCTGGAGGCCGTGGAGAAGGGGTACCGC
ATGGAACCCCCCGAGGGCTGTCCAGGCCCCGTGCACGTCTCATGAGCAGCTGCTGGGAGGCAGAGCCCCCGCCG
CGGCCACCCCTTCCGCAAACCTGGCCGAGAAGCTGGCCCGGGAGCTACGCAGTGCAGGTGCCCCAGCCTCCGTCTCA
GGGCAGGACGCCGACGGCTCCACCTCGCCCCGAAGCCAGGAGCCCTGACCCACCCGGTGGGGCCCTTGGCCCCA
GAGGACCGAGAGAGTGGAGAGTGCGGCGTGGGGGCACTGACCAGGCCCAAGGAGGGTCCAGGCGGGCAAGTCATC
CTCCTGGTGCCACAGCAGGGGCTGGCCACGTAGGGGGCTCTGGGCGGCCCGTGGACACCCAGACCTGCGAAG
GATGATCGCCCGATAAAGACGGATTCTAAGG

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FIGURE 5176A

GGAAGCCGAGCCTCTGCCAGCCCTGAGCTGGGAAGAAGCAGCTACCTCGGAGGCAGGGCGCGCAGGCGGGCGGGCG
ATGAGAGGGGGCGCAGCCGCAGCCCCGCGCTGGGGAGCCCACCGCTAACCCTGCACCCACCCACCCCTGCACAA
AAGAGCTGGCGGGCGCTGGCCACGTGCCCCGGGTGACCTTCCTCGGATGCAGAATCCGCCCTGCGAGCATCCT
CTTCCTCCTAGGCTCTGAAGGCCCGGGGAGCGTGAGCGATGCCAGCTGCACCCGGGCAGGGCTCGCCTTTGTTT
GCCAGTAAGGAGGAGAGGCTGTCTCAGCTGCAGAGGGGTATCCCTGCTTCAAGCCAGTGCCTCTTCCCAGCTCC
CATGGGGACCACCGAAGCCACGCTCCGGATGGAAAACGTGGACGTGAAGGAGGAATGGCAGGACGAAGATCTTCC
CAGGCCACTCCCAGAAGAGACGGGGGTGGAAGTGTGGCAGCCCGGTGGAAGACACATCCTCTCCTCCCAACAC
GCTAAATTTCAACGGAGCGCATCGTAAGAGGAAGACGCTGGTGGCCCCAGAGATCAACATTTCTCTGGATCAGAG
TGAGGGGTCCCTGCTGTCCGATGACTTCTTGGATACCCCTGATGACCTGGATATTAACGTGGATGACATCGAGAC
CCCCGATGAGACCGACTCGCTGGAGTTCTTGGGAATGGCAACGAACTGGAGTGGGAAGACGACACCCCCGTGGC
CACCGCCAAGAACATGCCCGGGACAGCGCGGATCTATTGGGGACGGCAGCAGGAGGACGGCAGCGCCGCCAA
CGGGCGCCTGTGGCGGACAGTGATCATCGGGGAGCAAGAGCACCGTATAGACCTGCACATGATCCGGCCTTACAT
GAAAGTGGTCACCCACGGAGGGTACTACGGCGAAGGCCTCAACGCCATCATCGTCTTCGAGCCTGCTTCTTCC
AGACAGCAGCCTCCCCGACTACCCTACATCATGGAGAACCTCTTCCTGTACGTATCAGCAGCTTAGAGCTCCT
GGTGGCTGAGGACTACATGATCGTGTACCTGAACGGTGCACGCCCCGGCGGAGGATGCCTGGAATCGGCTGGCT
GAAGAAGTGCTACCAGATGATCGACCGGAGGTTGCGGAAAAACCTGAAGTCCTTGATCATCGTCCACCCCTCGTG
GTTTATTTCGGACTGTGCTGGCCATCTCTCGCCCTTTTCATCAGCGTCAAGTTTCATCAACAAGATCCAGTACGTGCA
CAGCTTGGAAAGACCTGGAGCAACTCATCCCTATGGAACACGTCCAGATCCCAGACTGCGTCTGCAATACGAAGA
GGAAAGACTGAAGGCCAGGAGGGAGAGCGCGAGGCCCCAGCCGGAGTTTGCTGCTGCCAGGTCTGAAGAGAAGCC
AGAGGTGGCACCAGTGGAAAACAGGTCTGCTCTGGTCTCAGAAGATCAGGAAACAAGCATGTCTTGAGGGCGACGT
GAGCATAACAAAGGACATGGAAGAAGATTCCAGATGCCAGAAAACCTCTGTGACAGCCCCACTGGCCCCAGATCT
CATCCTGCCTCATCCTGAGTCCCAATCTTCCAAGGTGCCAGCCCCCTCCGTTTCATCTCTGAAACCCAGCATCCTT
TTCAGCTGCTTGAAAACATTGTATTTTTTTTTTTTAAACGATGCAGTATTTGTGCGTTCCAGAAAAGGGCCCCAGCT
CTGAGCCCCCTCACCTTCCACACTCACGAACTCTCAGCCGAGGAAGGCAAGAAGCGCAGGGGGTGGCCCCGCGTGG
CGTCGGTGCCCTCCGCTCCTGCTCGCAGCCTCTGTGGTCAGAGCTGGATACAAGATTCAAGACCCCTTCTCTTGCT
TGTCACCCGCTCCAGGTTGGAGCCACAGACACCCACCGCCACCCCGGCTGGGTCTGCGTCCCTTTCTGTGCCCTT
CCCTCCAGAATGCGGCCTCAGACCTAGAAGCTCAACCCCTATGAGGGCCACGTCTCTGGGGTAGCTCCTGACCT
CCGACCTTATGTCCAAATTTCACACCCATGGTTTTTCATTTGACCCGCCCCCTTCTCGCTCATAATGACACCCAG
CTCCTTTGAGAGGATCAGAGCCCATTCACACAAGAAGAGCCGCTGCCAACCATCCTTGTCTCCGATTGCAAAATG
ACACCCAGTAATCTAGAATTTCTCAAGCCCCTTAACTCAGATGTCAAGCCACCGGGCAACCCCGTCAATAC
CTCCACCAAGGAATGAGATATGTGGACCTCACTGCTCCCCCAACCCAGCGTCAGGCTGGGACACGCCAACGCTG
TTCGGGTTTGAACAGCAGAGGCTCAGAACTGGCTCTGAAATAGGCAGACCTAGCAAGAGGAAGATACAGGGTA
TCGGGCGTTTGAGTGTTCAGAAGTCATTGGGAAGATAAATCCAGTGCGCTGGCCGAGCCACCTGCATTCAA
GCTTGGACCAGCGGTTCTTGTTCGGGAGGCAATTTCCCTAGGAAAAAGAAGACAGACTTTTCTAATGTGGTCC
AAATGCGGATCACTGGTCAGATGGACTCTAGAAGCACTGAGCTCCCTGTCTCTGGAAGTATTTAAGAAAAGGCTG
GGCCAGGCACGATGGCTCACGCCGTGAATCCAGACTTTGGGAGGCCGAGGCAGGCGGATCACCTGAGGTGAGGA
GTTTGAGAACAGCCTGGCCAAACATGGTGAAACCTCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGC
AGGTGCCGTGAATCCAGCTACTTGGGAGGCTGAGGCATGAGAATCACTTAAACCTGAGAGGCAGAGGTTACAGT
GAGCCAAGATCGTGCCACTGCATTCCAGCCTGGGCGACAGAGCAAGACTCTGTCTCAAAAAAATAAAAAATAAT
CAGGGCACAGTGGCTCATGCCGTGAATCCAGCACTCTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTGAGGAG
TTCAAGACCAGCCTGGTGAACATGGCGAAACCCGCTCTTAATAAAAAATACAAAAATTAGCCGGGCATGGTGGTG
CATGCCGTGAATCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACCCAGGAGGCAGAGGTTGCAGTG
ATCCAAGATCATGCCACTGCACTCCAGCCTGGGCAACAAGAGCAAAACTCCGTCTCAAAATAAAAAGAAAAGAAA
AGAATGGACAGTGTGTCAGAGAGTTGCTCACGAGTTTCCCTCTAATCTAATGTCTTTCATGTCTATCAGTCTG
AGCAGACGCTGAGTAGGGCGGGCACATTCTCCAGGCCCTTCTCTAGCTCTGTGGTTGACCTCTCAGCAAGTGC
TATCCAGGCTGGGCCAACAGACCCACAATTAAGCTCAGTGAAAGCGTCCAGTGCACTTTGACCTGAGAC
AGCAAGGAATTGCATTTGGGGTTATTCCAACGATGATGGCAGGGAAGTGGTGGTATTTAGTGCTGAGGGGCAGTG
ATACAGAAAGATTGCCCCTGTGGGACAGGGTCTGCGCGAGTCCCATCCCCAAAAGCCAGCAGCTCCTGCCATGA

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FIGURE 5176B

GGAAGACGGGGTTTCTGAGCAGGCTTATGCCTGCAGGTTCTGTGGAGCCACCGGCTGTGACGGGACACCTCTGG
GTCTCAGCATTGCCCTGGGGAGGCTGGGACATTTAGGGACATGGTAGGGTTTTAACATTTGTTTCCCAAATGTCA
AATCCCGGGCACAGGGGCAAGACCCTGTCCCGAATTCCCACCCAGTGAATGGTGTGCTGCCAAAGCCAACACA
AGATGACAAAAGTGGCTGGGTACGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGACCGAGACAGGTGGATC
ACCTGAGGTCAGGAGTTCGAGACCAGGCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAATTAG
CTGGGTGTGGTGGCGCGCACCTGTAGTCCCAGCTACTCAGGAGGCTGAGGTAGAAGAATAGCTGGAACCCAGGAG
GCAGAGATTGCAGTCAGCCGAGATTGCACCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTGACTCAAAAGAA
AAAAAATGACAGAAGCCTGATTATCAGACTGCCCGGAGGAGACAGGCTCCAGCAGATAGATGCCAGCCAGGCCCA
GCTGCCACGATTTGTCCAGGTGACCAAAGGCACGCAGCTCCAGCATGAATCGTTCTAACCCAACAGTGACAAGA
ACTGCTGGGGCCTTAACCGTCATGGAAGACTGGGGCCGCTTCCAAGTCACAGACAGGAGACGGGGACAGGAAAGAA
CTCATTCCACCCAATCGGACACCTAATAATTGAGTGTCTACAGCAGCAATCAAGTGACAAGTGAGGCCCTACCTG
ACCCAGAAGGTGCCTGCCGGCTAAACATTCTGCCCCCACCAGAACTCCAGGGGGTCCGCCC GTTATGCCGTGGC
CCACCCACGCCCCCTTTGGATCACCAGCAGTCACAGACAACAGGCAGGCGAACTGAAGACCCCAACTCAGCCCCA
GCGGACCCCTCCAGAGCAAAAGAGGCCCGCGAGGCCACCTGTGCGCAGGCATGCCGAGGTCAAACAGCCGGGG
CCACCGTTCCCAGCTGGGGCCACGACCTGCACCGTCCACAGATGGGCTTTGAGATGGATTTGTATCAGGGTGGGGG
GTGTGGTTTGGCCAAAATGCAATGGACCCCGACCCCTCCTCGTAAAAGGATGTTGGGTTTCCCTCTGGTGACACA
TGGGATGCGTCATAAACCTCCCCCAAAGTCCTGGTCAGCAGCCCATCCTTCCAACGATGAGTTTTGCGGTTTTT
CAGAACAGAAATGATCACTACGATTGACGACGGTCGTGATGTTAAGACGTCGTCTCCATGAGCTTTGGGGGGACT
TTTATGTGGAATAAAGAAACTATCACTG

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FIGURE 5177

MGTTTEATLRMENVDVKEEWQDEDLPRPLPEETGVVELLGSPVEDTSSPPNTLNFNGAHRKRKTLVAPEINISLDQS
EGSLLSDDFLDTPDDLDINVDDIETPDETDSEFLGNGNELEWEDDTPVATAKNMPGDSADLFGDGTTEGSAAN
GRLWRTVIIGEQRIDLHMRPYMKVVTHGGYYGEGLNAIIVFAACFLPDSSLPDYHYIMENFLYVISSLELL
VAEDYMIVYLNATPRRRMPGIGWLKKCYQMIDRRRLRKNLKSIIIVHPSWFIRTVLAISRPFISVKFINKIQYVH
SLEDLEQLIPMEHVQIPDCVLQYEEERLKRRESARPQPEFVLPRSEEKPEVAPVENRSALVSEDQETSMS

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FIGURE 5178

ATGGTTAATTTTACGGTGGATCAGATCCGCGCCATCATGGACAAGAAGGCCAACATCCGCAACATGTCTGTTCATC
GCCCACGTGGACCATGGCAAGTCCACGCTGACAGACTCCCTGGTGTGCAAGGCGGGCATCATCGCCTCGGCCCGG
GCCGGGGAGACACGCTTCACTGATACCCGGAAGGACGAGCAGGAGCGTTGCATCACCATCAAGTCAACTGCCATC
TCCCTCTTCTACGAGCTCTCGGAGAATGACTTGAACCTTCATCAAGCAGAGCAAGGACGGTGCCGGCTTCTTCATC
AACCTCATTGACTCCCCCGGGCATGTGCACTTCTCCTCGGAGGTGACTGCTGCCCTCCGAGTCACCGATGGCGCA
TTGGTGGTGGTGGACTGCGTGTGAGCGTGTGCGTGCAGACGGAGACAGTGCTGCGGCAGGCCATTGCCGAGCGC
ATCAAGCCTGTGCTGATGATGAACAAGATGGACCGCGCCCTGCTGGAGCTGCAGCTGGAGCCCCGAGGAGCTCTAC
CAGACTTTCCAGCGCATCGTGGAGAACGTGAACGTATCATCTCCACCTACGGCGAGGGCGAGAGCGGCCCATG
GGCAACATCATGATCGATCCTGTCTCGGTACCGTGGGCTTTGGGTCTGGCCTCCACGGGTGGGCCTTACCCTG
AAGCAGTTTGCCGAGATGTATGTGGCCAAGTTCGCCGCCAAGGGGGAGGGCCAGTTGGGGCCTGCCGAGCGGGCC
AAGAAAGTAGAGGACATGATGAAGAAGCTGTGGGGTGACAGGTACTTTGACCCAGCCAACGGCAAGTTCAGCAAG
TCAGCCACCAGCCCCGAAGGGAAGAAGCTGCCACGCACCTTCTGCCAGCTGATCCTGGACCCCCATCTTCAAGGTG
TTTGATGCGATCATGAATTTCAAGAAAGAGGAGACAGCAAACTGATAGAGAACTGGACATCAAACCTGGACAGC
GAGGACAAGGACAAAGAAGGCAAACCCCTGTGAAGGCTGTGATGCGCCGCTGGCTGCCTGCCGGAGACGCCTTG
TTGCAGATGATCACCATCCACCTGCCCTCCCCTGTGACGGCCCAAGTACCGCTGCGAGCTCCTGTACGAGGGG
CCCCCGGACGACGAGGCTGCCATGGGCATTAAAAGCTGTGACCCCAAGGCCCTCTTATGATGTATATTTCCAAA
ATGGTGCCAACCTCCGACAAAGGTGCGTTCTACGCCTTTGGACGAGTCTTCTCGGGGCTGGTCTCCACTGGCCTG
AAGGTCAAGGATCATGGGGCCCAACTATACCCCTGGGAAGAAGGAGGACCTCTACCTGAAGCCAATCCAGAGAACA
ATCTTGATGATGGGCCGCTACGTGGAGCCATCGAGGATGTGCCTTGTGGGAACATTGTGGGCCTCGTGGGCGTG
GACCAGTTCCTGGTGAAGACGGGCACCATCACCACCTTCGAGCACGCGCACAACATGCGGGTGATGAAGTTCAGC
GTCAGCCCTGTTGTGAGAGTGGCCGTGGAGGGCAAGAACCCGGCTGACCTGCCCAAGCTGGTGGAGGGGCTGAAG
CGGCTGGCCAAGTCCGACCCCATGGTGCAGTGCATCATCGAGGAGTGGGAGAGCATATCATCGCGGGCGCCGGC
GAGCTGCACCTGGAGATCTGCCTGAAGGACCTGGAGGAGGACCACGCCTGCATCCCCATCAAGAAATCTGACCCG
GTCGTCTCGTACCGCGAGACGGTCAGTGAAGAGTGAACGTGCTCTGCCTCTCCAAGTCCCCCAACAAGCACAAC
CGGCTGTACATGAAGGCGCGGCCCTTCCCCGACGGCCTGGCCGAGGACATCGATAAAGGCGAGGTGTCCGCCCGT
CAGGAGCTCAAGCAGCGGGCGCGCTACCTGGCCGAGAAGTACGAGTGGGACGTGGCTGAGGCCCCGAAGATCTGG
TGCTTTGGGGCCGACGGCACCGGCCCAACATCCTCACCGACATCACCAAGGGTGTGAGTACCTCAACGAGATC
AAGGACAGTGTGGTGGCCGGCTTCCAGTGGGCCACCAAGGAGGGCGCACTGTGTGAGGAGAACATGCGGGGTGTG
CGCTTCGACGTCCACGACGTACCCCTGCACGCCGACGCCATCCACCGCGGAGGGGGCCAGATCATCCCCACAGCA
CGGCGCTGCCCTCTATGCCAGTGTGCTGACCGCCAGCCACGCCTCATGGAGCCCATCTACCTTGTGGAGATCCAG
TGTCAGAGCAGGTGGTTCGGTGGCATCTACGGGGTTTTGAACAGGAAGCGGGGGCCACGTGTTTCAGGAGTCCCAG
GTGGCCGGCACCCCCATGTTTGTGGTCAAGGCCTATCTGCCCGTCAACGAGTCTTTTGGCTTACCCTGACCTG
AGGTCCAACACGGGCGGCCAGGCGTTCCCCAGTGTGTGTTTGACCACTGGCAGATCCTGCCCGGAGACCCCTTC
GACAACAGCAGCCGCCCCAGCCAGGTGGTGGCGGAGACCCGCAAGCGCAAGGGCCTGAAAGAAGGCATCCCTGCC
CTGGACAACCTTCTGGACAAATTGTAGCGGGCCCTTCTGACGCGCTGCCGCCCCGGGGACTCGCAGCACCCAC
AGCACCACGTCTCTGAATTCTCAGACGACACCTGGAGACTGTCCCGACACAGCGACGCTCCCTGAGAGGTTTCT
GGGGCCCGCTGCGTGCCATCACTCAACCATAACACTTGATGCCGTTTCTTTCAATATTTATTTCCAGAGTCCGGA
GGCAGCAGACACGCCCTCTTAGTAGGGACTTAATGGGCCGGTGGGGAGGGGGAGGCGGGATGGGACACCCAACA
CTTTTCCATTCTTCAGAGGGAACTCAGATGTCCAACTAATTTTAACAAACGCATTAAAGAGGTTTATTTGGG
TACATGGCCCGCAGTGGCTTTTGCCCCAGAAAGGGGAAGGAACACGCGGGTAGATGATTTCTAGCAGGCAGGAA
GTCTGTGCGGTGTCACCATGAGCACTCAGCTGTACTAGTGCCATTGGAATAATAAATTTGATAAGGTGTGAAAA

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FIGURE 5179

MVNFTVDQIRAIMDKKANIRNMSVIAHVDHGKSTLTDSLVCAGIIASARAGETRFTDTRKDEQERCITIKSTAI
SLFYELSENDLNF IKQSKDGAGFLINLIDSPGHVDFSSEVTAALRVTDGALVVVDCVSGVCVQTETVLRQAI AER
IKPVLMMNKMDRALLELQLEPEELYQTFQRIVENVNVIISTYGEGESGPMGNIMIDPVLGTVGFGSGLHGWAFTL
KQFAEMYVAKFAAKGEGQLGPAERAKKVEDMMKKLWGDYFDPANGKFSKSATSPEGKKLPRTFCQLILDPIFKV
FDAIMNFKKEETAKLIEKLDIKLSEDKDKEGKPLLKAVMRRWLPAGDALLQMITIHLPSFVTAQKYRCELLYEG
PPDDEAAMGIKSCDPKGPLMMYISKMVPTSDKGRFYAFGRVFSGLVSTGLKVRIMGPNYTPGKKEDLYLKPIQRT
ILMMGRYVEPIEDVPCGNIVGLVGVDQFLVKTGTITTFEHAHNMRVMKFSVSPVVRVAVEAKNPADLPKLVEGLK
RLAKSDPMVQCIIEESGEHIIAGAGELHLEICLKDLEEDHACIP IKKSDPVVSYRETVSEESNVLCLSKSPNKH
RLYMKARPFPDGLAEDIDKGEVSARQELKQRARYLAEKYEWDAEARKIWCFGPDGTGPNILTDITKGVQYLNEI
KDSVVAGFQWATKEGALCEENMRGVRFDVHDVTLHADAIHRGGGQIIP TARRCLYASVLTAQFRLMEPIYLVEIQ
CPEQVVGGIYGV LNRKRGHVFEE SQVAGTPMFVVKAYLPVNESFGFTADLR SNITGGQAFPQC VFDHWQILPGDPF
DNSSRPSQVVAETRKRKGLKEGIPALDNFLDKL

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FIGURE 5180

CCCCCTGCCTCTCGGACTCGGGCTGCGGCGTCAGCCTTCTTCGGGCCTCGGCAGCGGTAGCGGCTCGCTCGCCTCA
GCCCCAGCGCCCCCTCGGCTACCCCTCGGCCCAGGCCCGCAGCGCCGCCCGCCCTCGGCCGCCCGACGCCGGCCTG
GGCCGCGGCCCGCAGCCCCGGGCTCGCGTAGGCGCCGACCGCTCCCGGCCCGCCCCCTATGGGCCCGGCTAGAGG
CGCCGCCGCCCGGCCCGCGGAGCCCCGATGCTGGCCCGGAGGAAGCCGGTGCTGCCGGCGCTCACCATCAACC
CTACCATCGCCGAGGGGCCATCCCTACCAGCGAGGGCGCCTCCGAGGCAAACCTGGTGGAACCTGCAGAAGAAGC
TGGAGGAGCTGGAACCTGACGAGCAGCAGAAGAAGCGGCTGGAAGCCTTTCTCACCAGAAAGCCAAGGTGGGCG
AACTCAAAGACGATGACTTCGAAAGGATCTCAGAGCTGGGCGCGGGCAACGGCGGGGTGGTCACCAAAGTCCAGC
ACAGACCCTCGGGCCTCATCATGGCCAGGAAGCTGATCCACCTTGAGATCAAGCCGGCCATCCGGAACCAGATCA
TCCGCGAGCTGCAGGTCTGCACGAATGCAACTCGCCGTACATCGTGGGCTTCTACGGGGCCTTCTACAGTGACG
GGGAGATCAGCATTTCATGGAACACATGGACGGCGGCTCCCTGGACCAGGTGCTGAAAGAGGCCAAGAGGATTC
CCGAGGAGATCCTGGGGAAAGTCAGCATCGCGGTTCTCCGGGGCTTGGCGTACCTCCGAGAGAAGCACCAGATCA
TGCACCGAGATGTGAAGCCCTCCAACATCCTCGTGAACCTCTAGAGGGGAGATCAAGCTGTGTGACTTCGGGGTGA
GCGGCCAGCTCATCGACTCCATGGCCAACCTCCTTCGTGGGCACGCGCTCCTACATGGCTCCGGAGCGGTTGCAGG
GCACACATTACTCGGTGCAGTCGGACATCTGGAGCATGGGCCTGTCCCTGGTGGAGCTGGCCGTCCGAAGGTACC
CCATCCCCCGCCCGACGCCAAAGAGCTGGAGGCCATCTTTGGCCGGCCCGTGGTGCACGGGGAAGAAGGAGAGC
CTCACAGCATCTCGCCTCGGCCGAGGCCCCCGGGCGCCCCGTGAGCGGTACGGGATGGATAGCCGGCCTGCCA
TGGCCATCTTTGAACTCCTGGACTATATTGTGAACGAGCCACCTCCTAAGCTGCCCAACGGTGTGTTACCCCCG
ACTTCCAGGAGTTTGTCAATAAATGCCTCATCAAGAACCCAGCGGAGCGGGCGGACCTGAAGATGCTCACAACC
ACACCTTCATCAAGCGGTCCGAGGTGGAAGAAGTGGATTTTGGCGGCTGGTTGTGTAAAACCTGCGGTGAACCAG
CCCGGCACACCCACGCGCACCGCCGTGTGACAGTGGCCGGGCTCCCTCGGTCCCGCTGGTGACCTGCCACCGTC
CCTGTCCATGCCCCGCCCTTCCAGCTGAGGACCGTGGCGCCTCCACCCACCCTCCTGCCTCACCCTGCGGAGAGC
ACCGTGGCGGGGCGACAGCGCATGCAGGAACGGGGTCTCCTCTCCTGCCGTCTGGCCGGGGTGCCCTTGGGGA
CGGGCGACGCTGCTGTGTGTGGTCTCAGAGGCTCTGCTTCCTTAGGTTACAAAACAAAACAGGGAGAGAAAAAGC

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FIGURE 5181

GCTTCCGGCGGAAGCGGCCTCAACAAGGGAAACTTTATTGTTCCCGTGGGGCAGTCGAGGATGTCGGTGAATTAC
GCGGCGGGGCTGTGCGCGTACGCGGACAAGGGCAAGTGCGGCCTCCCGGAGATCTTCGACCCCCCGGAGGAGCTG
GAGCGGAAGGTGTGGGAAGTGGCGAGGCTGGTCTGGCAGTCTTCCAGTGTGGTGTTCACACGGGTGCCGGCATC
AGCACTGCCCTCTGGCATCCCCGACTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCC
AAGTTCGACACCACCTTTGAGAGCGCGCGGCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGC
CTCCTCCGCTTCTGGTCAAGCAACGTGGACGGGCTCCATGTGCGCTCAGGCTTCCCCAGGGACAAACTGGCA
GAGCTCCACGGGAACATGTTTGTGGAAGAATGTGCCAAGTGTAAGACGCAGTACGTCCGAGACACAGTCGTGGGC
ACCATGGGCCTGAAGGCCACGGGCCGGCTCTGCACCGTGGCTAAGGCAAGGGGGCTGCGAGCCTGCAGGGGAGAG
CTGAGGGACACCATCCTAGACTGGGAGGACTCCCTGCCCCAGCGGGACCTGGCACTCGCCGATGAGGCCAGCAGG
AACGCCGACCTGTCCATCACGCTGGGTACATCGCTGCAGATCCGGCCCAGCGGGAACCTGCCGCTGGCTACCAAG
CGCCGGGGAGGCCGCTGGTCACTCGTCAACCTGCAGCCCACCAAGCACGACCGCCATGCTGACCTCCGCATCCAT
GGCTACGTTGACGAGGTCATGACCCGGCTCATGGAGCACCTGGGGCTGGAGATCCCCGCTGGGACGGCCCCCGT
GTGCTGGAGAGGGCGCTGCCACCCCTGCCCCGCCCCGCCCCACCCCCAAGCTGGAGCCCCAAGGAGGAATCTCCACC
CGGATCAACGGCTCTATCCCCGCCGGCCCCAAGCAGGAGCCCTGCGCCCAGCACAAACGGCTCAGAGCCCGCCAGC
CCCAAACGGGAGCGGCCACCAGCCCTGCCCCCACAGACCCCCCAAAGGGTGAAGGCCAAGGCGGTCCCCAGC
TGACCAGGGTGCTTGGGGAGGGTGGGGCTTTTTGTAGAACTGTGGATTCTTTTTCTCTCGTGGTCTCACTTTGT
TACTTGTCTTCTGTCCCCGGGAGCCTCAGGGCTCTGAGAGCTGTGCTCCAGGCCAGGGGTTACACCTGCCCTCCGT
GGTCCCTCCCTGGGCTCCAGGGGCTCTGGTGCAGTTCCGGGAAGAAGCCACACCCAGAGGTGACAGCTGAGCC
CCTGCCACACCCAGCCTCTGACTTGCTGTGTTGTCCAGAGGTGAGGCTGGGCCCTCCCTGGTCTCCAGCTTAAA
CAGGAGTGAACCTCCTCTGTCCCCAGGGCCTCCCTTCTGGGCCCCCTACAGCCACCCCTACCCCTCCTCCATGGG
CCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACTGCCTTTGGGGCTGGAGGGAGA
CGTGGGTCCACCAGGCTTCTGGAAGTCCCTCAATGCAATAAAAAACAATTTCTTTCTTGCAA

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FIGURE 5182

MSVNYAAGLSPYADKGKGLPEIFDPPEELERKVWELARLVWQSSSVVFHTGAGISTASGIPDFRGPHGVWTMEE
RGLAPKFDITTFESARPTQTHMALVQLERVGLLRFLVSQNV DGLHVRSGFPRDKLAELHGNMFVEECAKCKTQYVR
DTVVGTMGLKATGRLCTVAKARGLRACRGELRDTI LDWEDSLPDRDLALADEASRNADLSITLGTS LQIRPSGNL
PLATKR RGGR LVIVNLQPTKHDRHADLRIHGYVDEV MTRLMEHLGLEIPAWDGPRVLERALPFLPRPPTPKLEPK
EESPTRINGSIPAGPKQEP CAQHNGSEPA SPKRERPTSPAPHRPPKRVKAKAVPS

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FIGURE 5183

TCCATAACCTGCTGTGGCTCCCCATTGCCAGGCAGTGTAGAGTTCTGAATACCTTGTGCTGGAAGCTGAAGCCCT
TCCTGCCCCAGCCCTGAATCACCTCTCCAACCTCAGCCCCCTCCTGCTCCTGCTGCAGCCCCCAAAACACTTGCA
TTTCTCCTAAACTCATGGGCTCTTCCCAGCACCCAGGCCTTGTATTACCCCTTCTGTCTGATCTTCCCTCTCACC
CTTCAAGAAACTGCTTAGCCTCCTCCAGGAAGCCCTTCCACGTGCCCCAGGGCCCCCACCTCCACGGGGCTTCCC
CAGGCCCAGGTACCTCCTCTGATCCAGGCTTGACTCTTGGGGCCAGAGGATCTGTGTCCACCTGTCTCCCCAAG
ATCAAGGGCTTCTGGAGGGCAGGGCTTGGGCCCATGTGAGCATCGTCAGGCTCATTGCAGCAGCAGTGTGGTTG
AATAGAATAAGTCATTTTTGCCTTCGTGTGAATTCATCTCTCTCTCTGCTCTCCCTCTCTCTGTCTCTCTCC
AATTCTGTCTCTGACTTGCTTTGTCTTTAACTCTTTATCTCTCTGTCTGTGTCTTGTTCATCCCCCTCTCCCTG
TTCTTGCAACTCACCTCTATTTCTGTTTCTGATTCCCTCTCTCTGTCTCCCTGTCTCTCTCTGTCTCCTGATTT
TCTCTCTCTCCAACCTTCTCTCTATACCTCTCTGATTCTCCCTCTGTCTCTTTTCTGTTCCCTCTCCCCGTCC
ATCTCTCCCGGCCTGCCACCTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCCAAGT
TCGACACCACCTTTGAGAGCGCGCGGCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGCCTCC
TCCGCTTCTGGTCAGCCAGAACGTGGACGGGCTCCATGTGCGCTCAGGCCTCCCTTCTGGGCCCCCTACAGCCC
ACCCTACCCCTCCTCCATGGGCCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACT
GCCTTTGGGGCTGGAGGGAGACGTGGGTCCACCAGGCTTCTGAAAAGTCCTCAATGCAATAAAAAACAATTTCTT
TCTTGC

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FIGURE 5184

CAAAAGGACAGATGCAGAGGACAGGCGCCAGGCACAGATACCATCTCCCTTCCCCAAGCCAGCTGCCCCCAACCC
TCCCCCTGCCCCGAATTAGTCCCTCTGGGGCGGGAGCGGGGCACAGAGCAGAGCCCTCTTGGGGGAGGGGAAGCCC
GATCCGCACCCACCCTTCCCTTGGCCCCCTCTTCTTCTGCTGCTCCAATATCAATTTAGCCAGTGACCTCTCC
ACCAATTTGCACATCCCCACTCTCCCGGTCCGTTTACCGCCAGACATCGGTTCCATTTGACCCCTACTGGCGG
TCATTCCCACCCCTCTGCTGGTCAATTTACCCCTTTTGGCGGTCAAGTGCAGTCCCCCATTTCCCGGGAATT
TCCCCCTCCCCTCCTTCTCCCTCTCCCTCCCCTCCCAGCAGTGTCACTCCCAGCTGCTCCCCACCTCCCGCGC
TCCGCGCTCGCTGCGGCCAGTCTCGGGCGTCCCGTCAAGTGTCCAGCTGCCGCGGCCCTCGGCCCCGGCGACTCCC
GCCCCCAGCCCCCTTCCCTCCGCGGGCAGCGGCTCCCTCCCTCCCAGAACAGCTGAAGGTCTCAGTCACTCC
GAGGGGAGCGCAGGGGGAGGGGAGGGGCGGGGACGCGCGGAGGGGAGGTGGGGGAGCCTTGACGCTGCTGCCC
GGGACGCGGCCCGGGGCTGGTGGGAACAGGGGCGTCTCCTGCGCGCCCCCTCCCAGCGTCCCACCTCCCGGC
GGCGGCGGGGAAAGTCTCTCCGAAAGCGTGAAGGGGATTGGAGGAGTTTTATTTCCTTTGTGCGGGTGGCT
GGGGCCGGATCGAGGCGGGGGGCGCGGGACTGGGGCTCCCCGCTGAGCCGAGAGGAGCGCGACAAAGGATG
CGTCCCGCGGGGTACAGTCTCCGCGGCCCAACTTTGCGCGCGCGCCCCGCGCCCCCTGGGGAGCCCCCGCTG
CGCTGAGAACCCAGGCGTCCGGGCTGGGAGAGGGGCGGGAGCGTCCGAGGTGGCGCTGGCCCGGATCTCCGA
CCCCAGGAAGGGATCCCGGAGCTTCTGGAGGCGGCGGGCGCGCGTGTGCTCCAGGGAACCGCGCTGCCCGCGG
AAACTCCGCGCGCCTCCGCGGATGCCCTCGCCCTAGCCCCAGCGCGGGGTTCCGGGCCCTGCGAGGTCCCC
CCTTCCCCCGCGGTGCTTCCCAAGCTGGGCTAAGGCGGGCTTCTTCTCTCCCTCCTCTGTGCGCTCCTTTTCT
CCCCCTCGTTACCTTTTCTTCCCTCTATCCATCCAGAGCCCCGCCAAAGGGCGACCTGATCTTCTCATCCT
TCCCTGCTCTTCCCTTCTCTCCACCTCCTCCTCCTTGGGGAAGGGGCCCGGAGAAGGGCATGTGGGGGCC
CCTCTGACAGTGGCCCCGATTGGGGTGACAGGCGCCCAATGGCCAAGTGGCTACGGGACTACCTGAGCTTTGGGG
GTCGGAGGCCCCCTCCGCGAGCCGCCACCCCGGACTACACCGAGAGCGACATCCTGAGGGCCTACCGCGCGCAGA
AGAACCTGGACTTCGAGGACCCCTATGAGGACGCGGAGAGCCGCTGGAGCCGGACCCCGCGGGCCCTGGGGACT
CCAAGAACCCCGGAGATGCCAAGTATGGTTCTCCCAAGCACCGGCTCATCAAGGTGGAGGCTGCGGATATGGCCA
GAGCCAAGGCCCTTCTGGGCGGGCCCCGGGGAGGAGCTGGAAGCCGACACTGAGTATTTAGACCCCTTTGATGCTC
AGCCTCATCCTGCACCCCGGATGATGGGTACATGGAGCCCTACGATGCCCAATGGGTGATGAGTGAACCTCCCG
GCAGAGGGGTGCAGCTCTATGACACCCCTTATGAGGAACAGGACCCAGAGACAGCAGATGGACCCCTTCTGGGC
AGAAGCCTCGGCAGAGCCGGATGCCCCAGGAAGATGAACGCCAGCAGATGAGTATGATCAGCCCTGGGAGTGGA
AGAAAGACCACATCTCCAGGGCGTTTGACAGTGCAGTTTGACAGTCCAGAGTGGGAGAGGACTCCAGGCTCAGCCA
AGGAGCTCCGGAGACCTCCGCCCAGAAGCCCCAGCCTGCGGAGCGTGTGGACCCAGCCCTGCCCTGGAGAAAC
AGCCGTGGTTTCATGGCCCCCTGAACAGGGCGGATGCAGAGAGCCTCCTGTCCCTCTGCAAGGAAGGCAGCTACC
TAGTGCGGCTCAGTGAGACCAACCCCGAGGACTGCTCCTTGTCTCTCAGGAGCAGCCAGGGCTTCTGTCATCTGA
AGTTGCGCGGACCCGTGAGAACCAGGTGGTGTGGGCCAACACAGCGGGGCCCTTCCCAGCGTGCCCGAGCTCG
TCTTCCACTACAGTTCACGCCCACTGCCGTGCGGGTGCCGAGCATCTGGCTCTGCTGTACCCCGTGGTACGCG
AGACCCCTGACAGTGACCCTCGGCCCTTTTGTAGTCTCGGGCCAGAAATCGTATCCCAAAGCCCTCCCATGG
CCTAGAAAATAAATAAGTTATTGTT

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FIGURE 5185

MAKWLRDYLSFGGRRPPPQPPTPDYTESDILRAYRAQKNLDFEDPYEDAESRLEPDPAGPGDSKNPGDAKYGSPK
HRLIKVEAADMARAKALLGGPGEELEADTEYLDPFDAQPHAPPPDDGYMEPYDAQWVMSELPGRGVQLYDTPYEE
QDPETADGPPSGQKPRQSRMPQEDERPADEYDQPWEWKDHSRAFAVQFDSPEWERTPGSAKELRRPPPRSPQP
AERVDPALPLEKQPWFHGPLNRADAESLLSLCKEGSYLVRLSETNPQDCSLSLRSSQGFLHLKFARTRENQVVLG
QHSGPFPSVPELVLHYSSRPLPVQGAEHLALLYPVVTQTP

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FIGURE 5186

ACCCAGCGTGCGCGGGGCCCCGCGGGCCGGGCGGGGTGACCTGGGCTGCAGCCATGGAAGAACAGAGGGAGGCCCC
TGAGGAAGATCATCAAAACACTGGCTGTGAAGAATGAAGAAATTCAGAGCTTTATCTACTCCCTGAAACAGATGC
TGCTGAACGTGGAGGCGAACTCGGCGAAGGTGCAGGAGGACCTCGAAGCAGAGTTCCAGTCCCTCTTCTCCCTCC
TGGAGGAGCTGAAAGAAGGCATGCTTATGAAGATAAAACAGGACCGTGCCAGCCGCACCTACGAGCTGCAGAACC
AGCTGGCTGCCTGCACGCGGGCCCTGGAGAGCTCCGAGGAGCTTCTGGAGACAGCCAACCAGACTCTGCAGGCCA
TGGACAGCGAGGACTTTCTCAGGCTGCCAAGCAAATCAAAGATGGAGTGACCATGGCCCCCTGCCTTCCGGCTAT
CATTGAAAGCGAAGGTCAAGTGACAACATGAGTCACCTCATGGTGGACTTCGCGCAAGAGCGGCAGATGCTACAGG
CACTCAAGTTCTCTGCCTGTGCCCAGCGCACCCGTGATCGACCTGGCTGAGTCCCTGGTGGCAGATAACTGTGTGA
CCCTGGTGTGGCGCATGCCGGATGAGGACAGCAAGATTGACCACTACGTGCTGGAGTACCGGCGGACCAACTTCG
AGGGCCCCGCCCCGCTCAAGGAGGACCAGCCCTGGATGGTCATCGAGGGCATCCGGCAGACAGAGTACACCCTGA
CAGGTCTCAAGTTTGACATGAAATACATGAACTTCCGTGTGAAGGCCTGTAACAAGGCAGTTGCAGGAGAGTTCT
CTGAGCCGGTGACTCTGGAGACACCAGCGTTTCATGTTCCGCCTGGATGCGTCCACATCCCACCAGAACCTGCGGG
TGGATGATCTCTCCGTGGAGTGGGACGCTATGGGCGGGAAGGTGCAGGATATCAAGGCTCGCGAGAAAGATGGCA
AGGGGCGGACGGCGTCTCCCATCAACTCCCCAGCCAGAGGTACTCCATCTCCCAAGAGGATGCCCTCAGGTCTGTG
GGGACGGGACCGCTTACCGCTGAGTCCTACACAGTTCTGGGGGACACGCTGATCGACGGCGGGGAGCATTACT
GGGAGGTGCGCTACGAGCCGGACAGCAAGGCGTTTCGGCGTGGGCGTGGCTACCGCAGCCTGGGCCGCTTCGAGC
AACTGGGCAAGACGGCCGCTCCTGGTGCCTGCACGTCAACAATTGGCTGCAGGTGAGCTTCACGGCCAAGCAGC
CCAACAAGGTCAAGGTGCTGGACGCCCCCGTGCCGACTGCCTGGGTGTGCACTGTGACTTCCACCAAGGCCTCC
TGTCCTTCTACAATGCCCCGACCAACAAGTGCTGCACACTTTCAAGACCAGGTTACACAGCCGCTGCTGCCTG
CTTTCACGGTATGGTGTGGCAGCTTCCAGGTGACGACAGGCCTGCAGGTCCCCAGTGCTGTGCGCTGCCTGCAAA
AGCGAGGCAGTGCTACCAGCAGCTCCAACACCAGCCTCACCTAGGCCCCCCAGGCACCCACCCAGCTGGGGTGT
TTGGGGGAGTCGCCGCCAAGCCCAGGCTGCTGGAGCCAGGCACCCCTCCTCTGTCACTTGCTGCTTGGAGCCTTAA
CTCCAGATGGGGGGGTACCAAGAGGGAGTGGGCACCCTGGCGGGCCCTCTCCCCACCTCACCTCTTAATAAAGG
TCAGACACTGGCCAGGCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5187

MEEQREALRKIIKTLAVKNEEIQSFIYSLKQMLLNVEANSKQVEDLEAEFQSLFSLLEELKEGMLMKIKQDRAS
RTYELQNQLAACTRALESSEELLETANQTLQAMDSEDFPQAAKQIKDGVMTAPAFRLSLKAKVSDNMSHLMVDFA
QERQMLQALKFLPVPSAPVIDLAESLVADNCVTLVWRMPDEDSKIDHYVLEYRRTNFEGPPRLKEDQPWMVIEGI
RQTEYTLTGLKFDKYMNFVRKACNKAVAGEFSEPVLTETPAFMFRLDASTSHQNLRVDDLSVEWDAMGGKVQDI
KAREKDGGKGRASPINSARGTSPKRMPSGRGGRDRFTAESYTVLGD TLIDGGEHYWEVRYEPDSKAFGVGVAY
RSLGRFEQLGKTAASWCLHVNNWLQVSFTAKHANKVKVLDAPVPDCLGVHCDFHQGLLSFYNARTKQVLHTFKTR
FTQPLLP AFTVWCGSFQVTTGLQVPSAVRCLQKRG SATSSSNTSLT

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FIGURE 5188

GCGGCGGGCGGCAGCATGTCGGTGGCGGGGCTGAAGAAGCAGTTCTACAAGGCGAGCCAGCTGGTCAGTGAGAAG
GTCGGAGGGGGCCGAGGGGACCAAGCTGGATGATGACTTCAAAGAGATGGAGAAGAAGGTGGATGTCACCAGCAAG
GCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCAACCCAGCCTCGCGGGCTAAGCTGACCATG
CTCAACACGGTGTC AAGATCCG GGGCCAGGTGAAGAACCCCGGCTACCCGCAGTCGGAGGGGCTTCTGGGCGAG
TG CATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAACCTTTGGTGACGCATTGCTGGATGCCGGCGAGTCC
ATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCAAGCAGAACTTCATTGACCCCTCCAGAAC
CTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACCTGAAGAACTGGAGGGCCGCGCCTGGACTTTGACTAC
AAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGCTACGCCAGGCGCTGGAGAAGTTCGAGGAGTCCAAGGAG
GTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGCAGGTGAGTCAGCTCTCGGCCCTGGTGGAT
GCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGCTGGCGGAGAAGCTCAAGCGCAGGATGCGG
GAAGCTTCCTCAGGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGGAGCCCTTTGACCTTGAGAGCCTGAGCAG
TCCAACGGGGGCTTCCCTGCAACACAGCCCCAAGATCGCAGCTTCATCGTCTTTCCGATCTTCCGACAAGCCC
ATCCGGACCCCTAGCCGGAGCATGCCGCCCTGGACCAGCCGAGCTGCAAGGCGCTGTACGACTTCGAGCCCGAG
AACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTCAACGCTGACCAACCAGATCGATGAGAAGTGGTACGAG
GGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGGAGGTGCTTGTGCCCTGCCGCAGTGACTC
ACCCG†GTCCCCGCCCGCCCCCTCCGTCCACACTGGCCGGCACCCTTGCTGGGTCTCCTGCATTCCACGGAGCC
CCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCCCGGCCCTTGAGGTACTCCCTGAGCAGGAC
CCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTGTTTACACTAGCGCTGACTCCCAACGGTGA
CGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCCGCTCCCCAACTTCTCGCCAGCTGGCCGAGGCGGG
GCAACACTAAGGTGCTCTTAGAAACACTAATGTTCTCTGGGGCAGCCCCACCTCCGTCTTGACCCGACGGGGG
CCCGGCCACTGCCTACCCTCGAGTCCCGCAGCCTTAACAGGATGGGATCGAGGGTCCCCATGGGGTGGCTCAGA
GATAGGACCCCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATGGGCCCTGGCCCTACTCCAGGGCCAATGCA
CCCCCGCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAGGGCCTCACCGCCTCCCGGGCCTGCTGTCA
GCTTGACGCCCGGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACAGAGAACATGGTCTCCTGCAGGGCCCTGCC
TCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTACGCTTTTAACTGCCCCCATCCCAACCCAGGGAGGCCT
GTGTCACCTCTGGCACAAGCTGCCACCACCAGCCACCCACACCCAGCACACCTCACACGGGACCACAGCCG
CGCTGCCGAGGGCCAAGCACAAAGTTCCAGTGAGCGCATGTCCAGCCCTGGTGGCCAGGCTCCCTTGCTGAG
CCGCTGCCACTTCACCTGTGGGAAGTGGCCCCAGCCATCTCCTCTAGACCAAGGCAGGCAGCCCCGACATCTGC
TTCTCTATCGCCAATGCAAAATCGATGAAATGGGGAGTTCTCTGGGCCAGGCCACATTACATTCCCCTCCCT
CTGTGGTCCAGTGAAGCTCCGGACCCAGGCTCTGCTCTGCCCTGCCCTGCACCCCTCGTCAGAAGTACATGA
GGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCAAAC TGAAATGTACGCCTGAATTTTGTAACA
GAAGTATTAAATGTCTCTTTCTAC

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FIGURE 5189

MSVAGLKKQFYKASQLVSEKVGGAEGTKLDDDFKEMEKKVDVTSKAVTEVLARTIEYLQPNPASRAKL TMLNTVS
KIRGQVKNP GYPQSEGLLGECMIRHGKELGGESNFGDALLDAGESMKRLAEVKDSL DIEVKQNFIDPLQNLCEKD
LKEIQHHLKKLEGRRLDFDYKKKRQGKIPDEELRQALEKFESKEVAETSMHNLLETDIEQVSQLSALVDAQLDY
HRQAVQI LDELAEKLKRRMREASSRPKREYKPKPREPFDLGEPEQSNGGFPCTTAPKIAASSSFRSSDKPIRTPS
RSMPLDQP SCKALYDFEPENDGELGFHEGDVITLTNQIDENWYEGMLDGQSGFFPLSYVEVLVPLPQ

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FIGURE 5190

TTTTCTTCCGGGGGCTGGTCTCCGGCGGCCCCGTCCCCGACTGGGCCCCGTGCCCCCCCCGCCCCGCGGCCCCC
GCCGCCGGGCCAGCCGCCACCATGAAAGAAATTCTTTTCAGGAGTTCAAGGCCGACATCAAGTTCAAGAGCGCGGGA
CCCGGTTCAGAAGCTCAAAGAGTCCGTGGGGGAAAAGGCCACAAAGAGAAGCCCAACCAGCCAGCCCCAGGCCG
CCCCGCCAGGGACCCACCAATGAGGCACAGATGGCAGCCGCTGCTGCCCTAGCCCGGCTGGAGCAGAAGCAGTCC
CGGGCTTGGGGCCCCACATCGCAGGACACCATCCGAAACCAGGTGAGAAAGGAACCTTCAAGCCGAAGCCACCGTC
AGCGGGAGCCCCGAGGCCCCAGGGACCAACGTGGTATCTGAGCCCAGAGAGGAAGGCTCTGCCACCTGGCTGTG
CCTGGCGTGTACTTCACCTGTCCGCTCACTGGGGCCACCCTGAGGAAGGACCAGCGGGACGCTGCATCAAGGAG
GCCATTCTCTTGCACTTCTCCACCGACCCAGTGGCCGCTCCATCATGAAGATCTACACGTTCAACAAAGACCAG
GACCGGGTGAAGCTGGGTGTGGACACCATTGCCAAGTACCTGGACAACATCCACCTGCACCCCGAGGAGGAGAAG
TACCGGAAGATCAAGCTGCAGAACAAAGGTGTTTCAGGAGCGCATTAACTGCCTGGAAGGGACCCACGAGTTTTT
GAGGCCATTGGGTTCCAGAAGGTGTGCTTCCCGCCCAGGATCAGGAGGACCCCGAGGAGTTCTACGTGCTGAGC
GAGACCACCTTGGCCCCAGCCCCAGAGCCTGGAGAGGCACAAGGAACAGCTGCTGGCTGCGGAGCCCGTGC GCGCC
AAGCTGGACAGGCAGCGCCGCGTCTTCCAGCCCTCGCCCCCTGGCCTCGCAGTTCGAACCTGCCTGGGGACTTCTTC
AACCTCACAGCAGAGGAGATCAAGCGGGAGCAGAGGCTCAGGTCCGAGGCGGTGGAGCGGCTGAGCGTGCTGCGG
ACCAAGGCCATGCGGGAGAAGGAGGAGCAGCGGGGGCTGCGCAAGTACAACCTACACGCTGCTGCGCGTGCGCCTC
CCCGATGGCTGCCTCCTGCAGGGCACTTTCTACGCTCGGGAGCGGCTGGGGGCGGTGTACGGGTTCTGTCGGGAG
GCCCTGCAGAGCGACTGGCTGCCTTTTGAGCTGCTGGCCTCGGGAGGGCAGAAGCTGTCCGAGGACGAGAACCTG
GCCTTGAACGAGTGCGGGCTGGTGCCCTCTGCCCTCCTGACCTTCTCGTGGGACATGGCTGTGCTGGAGGACATC
AAGGCCGCGGGGGCCGAGCCGGACTCCATCCTGAAACCCGAGCTCCTGTGAGCCATCGAGAAGCTCTTTGAAAT
AAAAGCAGGGTTGGCCTCAGCCCTGTGGGTCTGTCTCATGCTCTCCCTGTTCTCTCCCCGCCACCCAGGGCCT
CCAAGCCACCTCTGGAAATACTTGGCTCTGCCCCATGGGCACGGGAGGGGCGCCAGCCGTGGAGCTGTGGAATTG
GGCCCCGTGGCAGAGCCCCCATCCCTTGGGGGCTGTGGGGATGCGCCCAAGCCCCGAGGGAGAGGCCTGGGGAC
ACCAAC

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FIGURE 5191

MKKFFQEFKADIKFKSAGPGQKLKESVGEKAHKEKPNQAPRPPRQGPTNEAQMAAAAALARLEQKQSRWGPST
QDTIRNQVRKELQAEATVSGSPEAPGTNVVSEPREEGSAHLAVPGVYFTCPLTGATLRKDQORDACIKEAILLHFS
TDPVAASIMKIYTFNKDQDRVKLGVDTIAKYLDNIHLHPREEEKYRKIKLQNKVFQERINCLEGTHEFFEAIGFQK
VLLPAQDQEDPEEFYVLSETTLAQPSLERHKEQLLAAEPVRAKLDRQRRVFQPSPLASQFELPGDFFNLTAEEI
KREQRLRSEAVERLSVLRTKAMREKEEQRGLRKYNYTLLRVRLPDGCLLQGTIFYARERLGAVYGFVREALQSDWL
PFELLASGGQKLS EDENLALNECGLVPSALLTFSWDMAVLEDIKAAGAEPDSILKPELLSAIEKLL

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FIGURE 5192

GTCTACCCGCCCTGCCCTGAGGACCCTAGTCCAACATGGCGCGCCCCAGCGGAGGGTGGAACGGCGTCGGCGCG
AGCTTIGGGGCCGCGCTGCTCCTAGGGGCCGTGGCGCTGAGGCCGGCGAGGCGGTGTCCGAGCCCACGACGGTG
GCGTTTGACGTGCGGCCCGGCGGCGTCTGTGCATTCTTCTCCATAACGTGGGCCCGGGGACAAATATACGTGT
ATGTTCACTTACGCCTCTCAAGGAGGGACCAATGAGCAATGGCAGATGAGTCTGGGGACCAGCGAAGACCACCAG
CACTTCACCTGCACCATCTGGAGGCCCCAGGGGAAGTCCTATCTGTACTTCACACAGTTCAAGGCAGAGGTGCGG
GGCGCTGAGATTGAGTACGCCATGGCCTACTCTAAAGCCGCATTTGAAAGGGAAAGTGATGTCCCTCTGAAAAC
GAGGAATTTGAAGTGACCAAAACAGCAGTGGCTCACAGGCCCGGGGCATTCAAAGCTGAGCTGTCCAAGCTGGTG
ATTGTGGCCAAGGCATCGCGCACTGAGCTGTGACCAGCAGCCCTGTTGCGGGTGGCACCTTCTCATCTCCGGTGA
AGCTGAAGGGGCCCTCCTGGCTCCCAACAGCTTCTCAGTTCCCACTTCTGCTGAGCTCTTCTGGACTCAGGATC
GCAGATCCGGGGCACAAAGAGGGTGGGGAACATGGGGGCTATGCTGGGGAAAGCAGCCATGCTCCCCCGACCTC
CAGCCGAGCATCCTTCATGAGCCTGCAGAACTGCTTCTATGTTTACCCAGGGGACCTCCTTTCAGATGAACTG
GGAAGAGATGAAATGTTTTTTCATATTTAAATAAATAAGAACATTAAAAAGC

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FIGURE 5193

MAAPSGGWNGVGASLWAALLLGAVALRPAEAVSEPTTVAFDVRPGGVVHSF SHNVGPGDKYTCMFTYASQGGTNE
QWQMSLGTSEDHQHFTCTIWRPQGKSYLYFTQFKAIEVRGAEIEYAMAYSKAAFERESDVPLKTEEFVTKTAVAH
RPGAFKAELSKLVIVAKASRTEL

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FIGURE 5194A

AAGGTGCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTCGTCCCCCGCTCCCGCCACTTCCGGGGTCGCA
GTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCCGGGACGACCTGCCAGTCCGGCCGCCGCCAC
GTCCCGGTCTGTGTCCACGCCCTGCAGCTGGAATGGAGGCTCTCTGGACCCCTTTAGAAGGCACCCCTGCCCTCCT
GAGGTGAGCTGAGCGGTTAATGCGGAAGGTTAAGAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAGAAG
CTTCTCGCTGAATTCGAGGGGGCTGAGAGGATGGCCACCACCGGGACCCCAACGGCCGACCGAGGCGACGCAGC
CGCCACAGATGACCCGGCCGCCGCTTCCAGGTGCAGAAGCACTCGTGGGACGGGCTCCGGAGCATCATCCACGG
CAGCCGCAAGTACTCGGGCCTCATTGTCAACAAGGCGCCCCACGACTTCCAGTTTGTGCAGAAGACGGATGAGTC
TGGGCCCCACTCCCACCGCCTTACTACCTGGGAATGCCATATGGCAGCCGAGAGAATCCCTCCTTACTCTGA
GATTCCCAAGAAGGTCCGGAAGAGGCTCTGCTGCTCCTGTCTGGAAGCAGATGCTGGATCATTTCAGGCCAC
GCCCCACCATGGGGTCTACTCTCGGGAGGAGGAGCTGCTGAGGAGCGGAAACGCCTGGGGGTCTTCGGCATCAC
CTCCTACGACTTCCACAGCGAGAGTGGCCTCTTCTCTTCCAGGCCAGCAACAGCCTCTTCCACTGCCGCGACGG
CGGCAAGAACGGCTTCATGGTGTCCCTATGAAACCGCTGGAAATCAAGACCCAGTGCTCAGGGCCCCGGATGGA
CCCCAAAATCTGCCCTGCCGACCCTGCCTTCTTCTCTTCAATAACAGCGACCTGTGGGTGGCCAACATCGA
GACAGGCGAGGAGCGGCGGCTGACCTTCTGCCACCAAGGTTTATCCAATGTCCTGGATGACCCCAAGTCTGCGGG
TGTGGCCACCTTCGTATACAGGAAGAGTTCGACCGCTTCACTGGGTACTGGTGGTGCCCCACAGCCTCCTGGGA
AGGTTTCAAGAGGCGCTCAAGACGCTGCGAATCCTGTATGAGGAAGTCGATGAGTCCGAGGTGGAGGTCAATCACGT
CCCCTCTCCTGCGCTAGAAGAAAGGAAGACGGACTCGTATCGGTACCCAGGACAGGCAGCAAGAATCCCAAGAT
TGCCCTTGAAGTGGCTGAGTTCAGACTGACAGCCAGGGCAAGATCGTCTCGACCCAGGAGAAGGAGCTGGTGCA
GCCCTTCAGCTCGCTGTTCCCGAAGGTGGAGTACATCGCCAGGGCCGGGTGGACCCGGGATGGCAAATACGCCTG
GGCCATGTTTCTGGACCGGCCCCAGCAGTGGCTCCAGCTCGTCTCCTCCCCCGGCCCTGTTTATCCCGAGCAC
AGAGAATGAGGAGCAGCGGCTAGCCTCTGCCAGAGCTGTCCCAGGAATGTCCAGCCGTATGTGGTGTACGAGGA
GGTCACCAACGCTCTGGATCAATGTTTATGACATCTTCTATCCCTTCCCCCAATCAGAGGGAGAGGACGAGCTCTG
CTTTCTCCGCGCCAATGAATGCAAGACCGGCTTCTGCCATTGTACAAAGTCACCGCCGTTTTTAAATCCCAGGG
CTACGATTGGAGTGAGCCCTTCAGCCCCGGGGAAGATGAATTTAAGTGCCCCATTAAGGAAGAGATTGCTCTGAC
CAGCGGTGAATGGGAGGTTTTGGCGAGGCACGGCTCCAAGATCTGGGTCAATGAGGAGACCAAGCTGGTGTACTT
CCAGGGCACCAAGGACACGCCGCTGGAGCACCACCTTACGTGGTCAGCTATGAGGCGGGCCGGCGAGATCGTACG
CCTACCCACGCCCGGCTTCTCCCATAGCTGCTCCATGAGCCAGAACTTCGACATGTTCTGTCAGCCACTACAGCAG
CGTGAGCACGCCGCCCTGCGTGACGCTTACAAGCTGAGCGGCCCCGACGACGACCCCTGCACAAGCAGCCCCG
CTTCTGGGCTAGCATGATGGAGGCAGCCAGCTGCCCCCGGATTATGTTCTCTCCAGAGATCTTCCATTTCACAC
GCGCTCGGATGTGCGGCTTACGGCATGATCTACAAGCCCCACGCCTTGACGCCAGGGAAGAAGCACCCACCGT
CCTCTTTGTATATGGAGGCCCCCAGGTGCAGCTGGTGAATAACTCCTTCAAAGGCATCAAGTACTTGC GGCTCAA
CACACTGGCCTCCCTGGGCTACGCCGTGGTTGTGATTGACGGCAGGGGCTCCTGTGACGAGGGCTTCGGTTTGA
AGGGGCCCTGAAAACCAAATGGGCCAGGTGGAGATCGAGGACCAGGTGGAGGGCCTGCAGTTCTGTGGCCGAGAA
GTATGGCTTCATCGACCTGAGCCGAGTTGCCATCCATGGCTGGTCTACGGGGGCTTCTCTCGCTCATGGGGCT
AATCCACAAGCCCCAGGTGTTCAAGGTGGCCATCGCGGGTGCCCCGCTACCGTCTGGATGGCCTACGACACAGG
GTACACTGAGCGCTACATGGACGTCCCTGAGAACAACAGCACGGCTATGAGGCGGGTTCGGTGGCCCTGCACGT
GGAGAAGCTGCCCAATGAGCCCAACCGCTTGCTTATCCTCCACGGCTTCTGGACGAAAACGTGCACTTTTTCCA
CACAACTTCTCGTCTCCCAACTGATCCGAGCAGGGAAACCTTACCAGCTCCAGATCTACCCCAACGAGAGACA
CAGTATTCGCTGCCCCGAGTCGGGCGAGCACTATGAAGTCACGTTGCTGCACTTTCTACAGGAATACCTCTGAGC
CTGCCCCACCGGGAGCCGCCACATCACAGCACAAAGTGGCTGAGCCTCCGCGGGGAACAGGCGGGAGGGACTGAG
TGGCCCGCGGGGCCCACTTGTCCCCGCCAGCGCTGGCCAGCCCCGAGGAGCCGCTGCCTTACCCG
CCCGACGCCTTTTATCCTTTTTTAAACGCTCTTGGGTTTTATGTCCGCTGCTTCTTGGTGGCAGACAGAGAGA
TGGTGGTCTCGGGCCAGCCCCCTCTCTCCCCGCTTCTGGGAGGAGGAGTCAACGCTGATGGGACCTGGAGAG
GCCAGAAGAGACTCAGAGGAGCGGGCTGCCTTCCGCTGGGGCTCCTGTGACCTCTCAGTCCCCTGGCCCGGCC
AGCCACCGTCCCCAGCACCCAAGCATGCAATTGCCTGTCCCCCGGCCAGCCTCCCCAACTTGATGTTTGTGTT
TTGTTTGGGGGATATTTTTTATAATTATTTAAAGACAGGCCCGGGCGGGTGGCTCACGTCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGATCACCTGAGGTTGGGAGTTCAAGACCAGCCTGGCCAACATGGGGAAACCCC
GTCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCGGTGCCTATAATCCCAGCTACTCGGGAGGCTGA

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FIGURE 5194B

GGCAGGAGAATCGCTTGAACCCGGGAGGTGGAGGTTGCGGTGAGCCAAGATCGCACCATTGCACTCCAGCCTGGG
CAACAAGAGCGAAACTCTGTCTCAAAATAAATAAAAAATAAAAGACAGAAAGCAAGGGGTGCCTAAATCTAGACT
TGGGGTCCACACCGGGCAGCGGGGTTGCAACCCAGCACCTGGTAGGCTCCATTTCTTCCCAAGCCCGAGCAGAGG
GTCATGCGGGCCCCACAGGAGAAGCGGCCAGGGCCCGGGGGGACACCTGTGGACAGCCCTCCTGTCCCCAA
GCTTTCAGGCAGGCACTGAAACGCACCGAACTTCCACGCTCTGCTGGTCAGTGGCGGCTGTCCCTCCCCAGCCC
AGCCGCCCAGCCACATGTGTCTGCCTGACCCGTACACACCAGGGGTTCCGGGGTTGGGAGCTGAACCATCCCCAC
CTCAGGGTTATATTTCCCTCTCCCTTCCCTCCCCGCCAAGAGCTCTGCCAGGGGCGGGCAAAAAAAAAAAGTAAA
AAGAAAAGAAAAAAAAAAAAAA

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FIGURE 5195

TTCCAAGCTGGTTTTGAAGTCGCGGCAGCTGTTCTGGGACGTCCGGTTGACCGCGCGTCTGCTGCAGAGACCAT
GTCTGCCGACGGGGCAGAGGCTGATGGCAGCACCCAGGTGACAGTGGAAGAACCGGTACAGCAGCCCAGTGTGGT
GGACCGTGTGGCCAGCATGCCTCTGATCAGCTCCACCTGCGACATGGTGTCCGCAGCCTATGCCTCCACCAAGGA
GAGCTACCCGCACATCAAGACTGTCTGCGACGCAGCAGAGAAGGGAGTGAGGACCCTCACGGCGGCTGCTGTGAG
CGGGGCTCAGCCGATCCTCTCCAAGCTGGAGCCCCAGATTGCATCAGCCAGCGAATACGCCCACAGGGGGCTGGA
CAAGTTGGAGGAGAACCTCCCCATCTGCAGCAGCCCACGGAGAAGGTCCTGGCGGACACCAAGGAGCTTGTGTC
GTCTAAGGTGTGCGGGGGCCCAAGAGATGGTGTCTAGCGCCAAGGACACGGTGGCCACCCAATTGTGCGGAGGCGGT
GGACGCGACCCGCGGTGCTGTGAGAGCGGCGTGGACAAGACAAAGTCCGTAGTGACCGGCGGCGTCCAATCGGT
CATGGGCTCCCGCTTGGGCCAGATGGTGTGAGTGGGGTCGACACGGTGTGTTGGGAAGTCGGAGGAGTGGGCGGA
CAACCACCTGCCCCTTACGGATGCCGAACCTGGCCGCATCGCCACATCCCTGGATGGCTTTGACGTGCGCTCCGT
GCAGCAGCAGCGGCAGGAACAGAGCTACTTCGTACGTCTGGGCTCCCTGTGCGGAGAGGCTGCGGCAGCACGCCTA
TGAGCACTCGCTGGGCAAGCTTCGAGCCACCAAGCAGAGGGCACAGGAGGCTCTGCTGCAGCTGTGCGAGGTCCT
AAGCCTGATGGAACCTGTCAAGCAAGGCGTTGATCAGAAGCTGGTGGAAAGGCCAGGAGAAGCTGCACCAGATGTG
GCTCAGCTGGAACCAAGCAGCTCCAGGGCCCCGAGAAGGAGCCGCCCAAGCCAGAGCAGGTCGAGTCCCGGGC
GCTCACCATGTTCCGGGACATTGCCAGCAACTGCAGGCCACCTGTACCTCCCTGGGGTCCAGCATTTCAGGGCCT
CCCCACCAATGTGAAGGACCAGGTGCAGCAGGCCCCGCCAGGTGGAGGACCTCCAGGCCACGTTTTCCAGCAT
CCACTCCTTCCAGGACCTGTCCAGCAGCATTCTGGCCCAGAGCCGTGAGCGTGTGCGCCAGCGCCCGCGAGGCCCC
GGACCACATGGTGGAAATATGTGGCCCAGAACACACCTGTGTCAGTGGCTCGTGGGACCCCTTTGCCCTGGAATCAC
TGAGAAAGCCCCGGAGGAGAAGAAGTAGGGGGGAGAGGAGAGGACTCAGCGGGCCCCGTCTCTATAATGCAGCTGT
GCTCTGGAGTCTCAACCCGGGGCTCATTTCAAACCTATTTTCTAGCCACTCCTCCCAGCTCTTCTGTGCTGTCC
ACTTGGGAAGCTAAGGCTCTCAAAAACGGGCATCACCCAGTTGACCCATCTCTCAGCCTCTCTGAGCTTGGAAGAA
GCCTGTTCTGAGCCTCACCCATATCAGTCAGTAGAGAGAGATGTCCAGAAAAAATATCTTTTCAGGAAAGTTCTCCC
CTGCAGAATTTTTTTTCTTGTAAATATCAGGAATATAGGCCGGGTGCGGTGGCTCACACCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGAACACCTGAGGTGAGGTGTTGAGACCAGCCAGGCCAACATGGTGAAACCCC
GTCTCTACTAAAAATACAAAAAAAATGAGCCGGGCATGGTAGCAGGTGTCTGTTATCCAGTTAGGAGGCTGAG
GCAAGAGAATCTCTTGAACCTGAGAGGCGGAGGTTGCAGTGAGCCAAGATCGCGCCATTGCACTCCAGCCTGGGG
GACAAGAGTGAGACTTAGTCTCA

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FIGURE 5196A

CGACTCCTTAGAGCATGGCATGGCTCAGAGGTGCTGGTAAAACTGATGGGGGTTTTTGTCTGTCCCTCCCCTCAGC
GCCGACACCATGTGGATCCAGGTTCCGACCATTGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG
ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC
AGGGGCAAACAGATGGAGGACGGCCATACCCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG
GTCCGCCAGAGCCTCGTGCTCCCCACAGCACCAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC
TGCCTGGGCCAGAGTGAGTCAGACAAGTCTCCACCCACGGTGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC
GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTGATGCTCGGGACACGAAC
ATGGGGGCGTGTTTTGAGGCGCAGGTGGTCAGGCTGACGCGGAAGGCCCTCCCGGGACGAGCCCTGCAGCTCC
ACGTCCAGGCCGGCGCTGGAGGAGGACGTCAATTTACCACGTGAAAATACGACGACTACCCGGAGAACGGCGTGGTC
CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCGCACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG
GTCATGCTCAACTACAACCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC
GAGACCAGGACGGCGCGGGAACCTTACGCCAACGTGGTGCTGGGGGATGATTCTCTGAACGACTGTCCGATCATC
TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG
AGCGGGCGCTCTGCAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG
GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCACATGGCCTTCCACATCTACTGCCTGGACCCG
CCCCCTCAGCAGTGTTCCACAGCAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG
GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGGCGAAGATGGCCTCGGCCACATCGTCTCACAGCGGGACTGG
GGCAAGGGCATGGCCTGTGTGGGCCGACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG
GGGATCCCCGTGGGCACCATGTGGCGGTTCCGAGTCCAGGTCAGCGAGTCCGGGTGTCCATCGGCCCCACGTGGCT
GGCATACACGGCCGGAGCAACGACGGAGCGTACTCCCTAGTCTTGGCGGGGGGCTATGAGGATGATGTGGACCAT
GGGAATTTTTTACATACACGGGTAGTGGTGGTCGAGATCTTTCCGGCAACAAGAGGACCGCGGAACAGTCTTGT
GATCAGAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC
GAGGCCAAGGACTGGCGGTGCGGGGAAGCCGGTCAGGGTGGTGCGCAATGTCAAGGGTGGCAAGAATAGCAAGTAC
GCCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGGTTGTGAAATACTGGCCCCGAGAAGGGGAAGTCCGGG
TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGAGCAGAAGGAGGGGAAGGACCGG
ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG
GAGAACAGCAAGAGGGAGGAGGAGGAGCAGCAGGAGGGGGGCTTCGCGTCCCCCAGGACGGGCAAGGGCAAGTGG
AAGCGGAAGTCGGCAGGAGGTGGCCCCGAGCAGGGGGCCGGGTCCCCGCGCCGGACATCCAAGAAAACCAAGGTGGA
GCCCTACAGTCTCACGGCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAATGAGGT
CCTGGCGTCACTCAAGGACCGGCCGGCGAGCGGCAGCCCCGTTCAGTTGTTCTCTGAGTAAAGTGGAGGAGACGTT
CCAGTGTATCTGCTGTCAGGAGCTGGTGTTCGGGCCCATCAGACCGTGTGCCAGCACACGTTGTGCAAGGACTG
CCTGGACAGATCCTTTCGGGCACAGGTGTTAGCTGCCCTGCCCTGCCGTACGACCTGGGCCGAGCTATGCCAT
GCAGGTGAACCAGCCTCTGCAGACCGTCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGGTGATCTCCAAG
CACTTCTCGACAGGCGTTTTGCTGAAAACGTGTGCGAGGGCTCGTTTCATCGGCACTGATTTTGTCTTAGTGGGC
TTAACTTAAACAGGTAGTGTTCCTCCGTCCCTAAAAAGGTTTGTCTTCTTTTTTTTTTTATTTTTATTTTTT
AAATCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCTTTGA
AAACATAAAAGCCTGCAATTTCTCGACAAAACAACACAAGATTTTTTAAAGATGGAATCAGAACTACGTGGTGT
GGAGGCTGTGATGTTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTAAGAAGGCGACAGGATCA
GTCCTTCTCTCGGGTCTGGCCCCAAGGTCAGAGCAAGCATCTTCTTGACAGCATTTTGTCTATCTAAAGTCCAG
TGACATGGTTCCCCGTGGTGGCCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAA
GGAAAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCAGACTGCTTAGCGTCT
GAGATCCCGTGAAAAGTCTCTGCCCCAGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTC
TGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCACGGACGGACGCCAGCACACGAAG
TCACGTGCAAGTGCCCTTTGATTGCTTCTTTCTTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAA
AATGTCAACCAGATTCTAGAACTGCGGTTCATCCAGTTCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGA
GCCTTATAGATCATTACATTCAATTTTTTAACTCAGCAAGTGAGAACTTACAAGAGGGTTTTTTTTAAATTTT
TTTTTCTCTTAATGAACACATTTTCTAAATGAATTTTTTTTGTAGTTACTGTATATGTACCAAGAAAGATATAAC
GTTAGGGTTTGGTTGTTTTTGTATTTTTTCTTTTGAAGGGTTTGTAAATTTTCTAATTTTACCAA